756. b. 21
8
P.P. 2465/8

ʼΑΤΛΑΣ ΟΥΡΑΝΙΟΣ,
The COELESTIAL ATLAS;
OR, A NEW
EPHEMERIS
For the YEAR of our LORD 1785.
Being the Firſt after
BISSEXTILE, or LEAP-YEAR.
Wherein are contained
The Heliocentrick and Geocentrick Places of the Planets, the ECLIPSES of the Luminaries, and other remarkable PHÆNOMENA that will happen this Year.
Carefully computed
From the genuine TABLES of Dr. EDMUND HALLEY, thoſe of Profeſſor MAYER, and other the lateſt and moſt correct ASTRONOMICAL TABLES.
ALSO
A Compleat ALMANACK, containing the FEASTS and FASTS of the Church of ENGLAND; the Times of the LUNATIONS; the Riſing and Setting of the Sun, Moon, and Planets, &c.
Adapted to the
Meridian and Latitude of the ancient and honourable
CITY of LONDON.
To which are added,
Several uſeful TABLES: As, a TABLE of the Sun's ſemi-diurnal Arcs, by which the Times [illegible] Sun's Riſing and Setting may be known by Inſpection, on [illegible] the Year, and in any Part of GREAT-BRITAIN or IR[illegible] IDE-TABLE, and a very correct one of the Eclipſes [illegible] firſt Satelles; a TABLE of the Sun's Right-Aſcenſion [illegible] TABLES of the moſt remarkable fixed Stars, take[illegible] FLAMSTEED's Catalogue; and, laſtly, a correct TAB[illegible] of Latitudes and Longitudes of the moſt remarkable Places in the World.

By ROBERT WHITE,
Teacher of the Mathematicks.

Οἱ οὐρανοὶ διηγοῦνται δόξαν Θεοῦ.

The THIRTY-SIXTH IMPRESSION.

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Ephemerides. P.

Chronological Notes for the Year 1785.

Golden Number - -	19	Septuageſima Sunday	Jan. 23
Cycle of the Sun - -	2	Shrove Sunday -	Feb. 6
The Epact - - -	18	Eaſter Day - -	Mar. 27
Dominical Letter - -	B	Whit-Sunday -	May 15
Number of Direction -	6	Trinity Sunday -	May 22
Roman Indiction - -	3	Advent Sunday -	Nov. 27

Aſtronomical CHARACTERS explained.

♈	Aries	♋	Cancer	♎	Libra	♑	Capricorn
♉	Taurus	♌	Leo	♏	Scorpio	♒	Aquarius
♊	Gemini	♍	Virgo	♐	Sagitary	♓	Piſces

♄	Saturn	☉	Sol (the Sun)	☽	Luna (the Moon)	⊖	Tellus,
♃	Jupiter	♀	Venus	☊	Moon's N. Node		Terra (or
♂	Mars	☿	Mercury	☋	her S. Node		the Earth)

☌ Conjunction when Planets are in the ſame Sign, Deg. Min. &c

✱ Sextile when 2 Signs diſt.	△ Trine when 4 Signs diſt.
□ Quartile when 3 Signs diſt.	☍ Oppoſition when 6 Signs diſt

Of the Four Quarters of the YEAR 1785.

THE Spring Quarter begins on the 20th Day of March, at 32 Minutes paſt 4 in the Morning, apparent Time.

The Summer Quarter begins June the 21ſt, 37 Minutes paſt 2 in the Morning.

The Autumnal Quarter begins September the 22d, 18 Minutes paſt 4 in the Afternoon.

The Winter Quarter begins December the 21ſt, 47 Minutes paſt 8 in the Morning.

THE beautiful Planet VENUS will be an Evening Star 'till May the 30th; and after that Time ſhe will be a Morning Star to the Year's End.

JUPITER will be an Evening Star 'till the 10th Day of March, at which Time he becomes a Morning Star; and ſo continues 'till Oct. 2d. and after that an Evening ſtar to the Year's End.

The NAMES of the Learned JUDGES of the LAW.

I. The Right Hon. Lord Thurlow, Lord High Chancellor.

Right Honourable Sir Lloyd Kenyon, Bart. Maſter of the Rolls.

II. In the K. Bench. } R. H. Wm. Earl Mansfield, L. C. J. Edward Willes, Eſq; Sir W. H. Aſhurſt, Knt. Francis Buller, Eſq;

III. In the C. Pleas. } R. H. Alex. Lord Loughborough, L. C. J. Sir Henry Gould, Knt. Sir George Nares, Knt. John Heath, Eſq;

IV. In the Exchequer } Sir John Skynner, Knt. L. C. B. Sir James Eyre, Knt. Sir Beaumont Hotham, Knt. Sir Richard Perryn, Knt.

Pepper Arden, Eſq; Attor. General; Alex. M'Donald, Eſq; Solic. General.

A TABLE of TERMS and their RETURNS.

Hilary Term begins Jan. 23, ends Feb. 12.

Returns or Eſſoign-days.		Exc	Ret.	Ap.	W. D.
In eight Days of St. Hilary, - -	Jan. 20	21	22	24	Monday
From the Day of St. Hilary in 15 Days -	27	28	29	31	Monday
On the Morrow of the Purif. Bleſſed Mary,	Feb. 3	4	5	7	Monday
In eight Days of the Purif. of Bleſſed Mary, -	9	10	11	12	Saturd.
Eaſter Term begins April 13, ends May 9.					
From the Day of Eaſter in 15 Days, -	April 10	11	12	13	Wedn.
From the Day of Eaſter in 3 Weeks, - -	17	18	19	20	Wedn.
From the Day of Eaſter in 1 Month, - -	24	25	26	27	Wedn.
From the Day of Eaſter in 5 Weeks, -	May 1	2	3	4	Wedn.
On the Morrow of the Aſcenſion, - - -	6	7	8	9	Monday
Trinity Term begins May 27, ends June 15.					
On the Morrow of the Holy Trinity, -	May 23	24	25	27	Friday.
In 8 Days of the Holy Trinity, - - -	29	30	31	J1	Wedn.
In 15 Days of the Holy Trinity, - -	June 5	6	7	8	Wedn.
In 3 Weeks of the Holy Trinity, - - -	12	13	14	15	Wedn.
Michaelmas Term begins Nov. 6, ends Nov. 29.					
On the Morrow of All Souls, - - -	Nov. 3	4	5	7	Monday
On the Morrow of St. Martin, - - -	12	13	14	15	Tueſday
In eight Days of St. Martin, - - - -	18	19	20	21	Monday
In 15 Days of St. Martin, - - - -	25	26	27	28	Monday

N. B. No Sittings in Weſtminſter-Hall on Aſcenſion-day, Midſummer-day, and the 2d of February.

The Exchequer opens eight Days before any Term begins, except Trinity, before which it opens but four Days.

Note, That the firſt and laſt Days of every Term, are the Days of Appearance.

BIRTH-DAYS of the ROYAL FAMILY.

King George III.	June 4,	1738
Prince of Wales,	Aug. 12,	1762
Prince Frederick,	Aug. 16,	1763
Prince Wm. Henry,	Aug. 21,	1765
Prs. Cha. Aug. Mat.	Sept. 29,	1766
Prince Edward,	Nov. 2, -	1767
Prs. Auguſta Sophia,	Nov. 8,	1768
Prs. Elizabeth,	May 22, -	1770
Prince Erneſt Auguſtus,	June 5,	1771
Prince Aug. Fred.	Jan. 27,	1773
Prince Adolph. Fred.	Feb. 24,	1774
Princeſs Mary,	April 25, -	1776
Princeſs Sophia,	Nov. 3, -	1777
Princeſs Amelia,	Aug. 7, -	1783
Queen Charlotte,	May 19,	1744
Prs. Amelia,	June 10, -	1711
Prs. Auguſta of Brun.	Aug. 11,	1737
Duke of Glouceſter,	Nov. 25,	1743
Duke of Cumberland,	Nov. 7,	1745

SOVEREIGNS of EUROPE, their Acceſſion, &c.

Kingdoms, &c.	To whom ſubject.	When born.		Began to reign.	
England, &c.	George III.	June 4,	1738	Oct. 25,	1760
France	Lewis XVI.	Aug. 23,	1754	May 10,	1774
Ruſſia	Catharine II.	May 2,	1729	July 9,	1762
Spain	Charles III.	Jan. 20,	1716	Aug. 10,	1759
Portugal	Mary	Dec. 7,	1734	Feb. 24,	1777
Pruſſia	Frederic III.	Jan. 24,	1712	May 20,	1740
Denmark & Norway	Chriſtian VII.	Jan. 29,	1749	Jan. 14,	1766
Sweden	Guſtavus III.	Jan. 24,	1746	Feb. 13,	1771
Germany	Joſeph	Mar. 13,	1741	Aug. 18,	1765
Poland	Staniſlaus III.	Jan. 17,	1732	Nov. 25,	1764
Holland	William V.	March 8,	1748	Oct. 11,	1751
Popedom	Pius VI.	Dec. 27,	1717	Feb. 18,	1775
Sardinia	Victor	June 26,	1726	Mar. 20,	1773
Ottoman Empire	Achmet IV.	Nov. 5,	1719	Jan. 21,	1774

The FULL WEIGHT of the Coins, with the LEAST WEIGHT allowed to paſs of the Gold Coin.

GOLD.	Wt. allowed. dwt.	gr.	Full Wt. dwt.	gr.	SILVER.	Full Wt. dwt.	gr.
Guinea, - -	5	8	5	$9\frac{39}{89}$	A Crown, - -	19	$8\frac{16}{31}$
Half Guinea, -	2	16	2	$16\frac{64}{89}$	Half Crown, -	9	$16\frac{8}{31}$
Quarter Guinea,	1	8	1	$8\frac{32}{89}$	Shilling, - -	3	$20\frac{28}{31}$
					Six Pence, - -	1	$22\frac{14}{31}$

According to the above proportions it appears, that the value of a *lb.* of ſilver is 62 s. or 3 l. 2 s. and of a *lb.* of gold is 44½ guineas, or 46 l. 14 s. 6 d. Alſo that the *oz.* of ſilver is 5 s. 2 d. and the *oz.* of gold 3 l. 17 s. 10½d. So that the value of the ſtandard gold is 15 times that of the ſilver, and 1-14th more.

A Table of the Kings and Queens of England ſince the Conqueſt.

Kings and Queens	Born A.D.	Began their Reign	Reigned Y. M. D.	Age	Rem. Deaths and Dethroned	Where buried.
Will. Conq.	1027	1066 Oct. 14	20 10 26	60	Burſt by Leap.	Caen, Norm
Will. Rufus	1057	1087 Sept. 9	12 10 24	43	Slain accidentally.	Wincheſter
Henry I.	1068	1100 Aug. 2	35 3 29	77		Reading
Stephen	1105	1135 Dec. 1	18 10 24	49		Feverſham
Henry II.	1133	1154 Oct. 25	34 8 11	55		Fonteveraud
Richard I.	1156	1189 July 6	9 9 0	43	Slain with an Arrow.	Fonteveraud
John	1165	1199 April 6	17 6 13	50		Worceſter
Henry III.	1207	1216 Oct. 19	56 0 28	65		Weſtminſter
Edward I.	1239	1272 Nov. 16	34 7 21	67		Weſtminſter
Edward II.	1284	1307 July 7	19 6 18	43		Glouceſter
Edward III.	1312	1327 Jan. 25	50 4 27	65		Weſtminſter
Richard II.	1366	1377 June 21	22 3 8	33	Dep. & murd.	Weſtminſter
Henry IV.	1367	1399 Sept. 29	13 5 20	46		Canterbury
Henry V.	1389	1413 Mar. 20	9 5 11	33		Weſtminſter
Henry VI.	1421	1422 Aug. 31	38 6 4	49	Dep. & murd.	Windſor
Edward IV.	1442	1461 Mar. 4	22 1 5	41		Windſor
Edward V.	1471	1483 April 9	0 2 15	12	Murder'd.	Not known
Richard III.	1443	1483 June 22	2 2 0	42	Slain in Battle.	Leiceſter
Henry VII.	1456	1485 Aug. 22	23 8 0	52		Weſtminſter
Henry VIII.	1492	1509 April 22	37 9 6	55		Windſor
Edward VI.	1537	1547 Jan. 28	6 5 8	15		Weſtminſter
Mary I.	1516	1553 July 6	5 4 11	42	Died of Grief.	Weſtminſter
Elizabeth	1533	1558 Nov. 17	44 4 7	69		Weſtminſter
James I.	1566	1603 Mar. 24	22 0 3	58		Weſtminſter
Charles I.	1600	1625 Mar. 27	23 10 3	48	Beheaded.	Windſor
Charles II.	1630	1649 Jan. 30	36 0 7	54		Weſtminſter
James II.	1633	1685 Feb. 6	4 0 7	67	Abdicated.	St. Germain
Mary II.	1662	1689 Feb. 13	5 10 15	32		Weſtminſter
William III.	1650	1689 Feb. 13	13 0 23	52		Weſtminſter
Anne	1665	1702 Mar. 8	12 4 24	49		Weſtminſter
George I.	1660	1714 Aug. 1	12 10 10	67		Hanover
George II.	1683	1727 June 11	33 4 14	77		Weſtminſter
George III.	1738	1760 Oct. 25	Crowned Sept. 22, 1761.			

Above you view the Riſe and Fall of Kings,
Whoſe Fate ſometimes a uſeful Leſſon brings.
Well if all Men could profit from the paſt!
Each know his Duty, each excel the laſt,
And juſtly execute his ſtated Taſk.

A TABLE of the moſt Reverend, Right Reverend, and Reverend, the ARCHBISHOPS, BISHOPS and DEANS, exerciſing Eccleſiaſtical Juriſdiction, 1785.

BISHOPS.	Sees.	Date.	Succeeded.	DEANS.
Dr. John Moore	*Bangor*	1775	Ewer deceaſed	
Arch-Biſhop	Canterb. A.B	1783	Cornwallis dec.	Dr. Horne
Dr. Will. Markham	*Cheſter*	1748	Keene tranſlat.	
Arch-Biſhop	York A. B.	1777	Drummond de.	Dr. J. Fountayne
Dr. Robert Lowth	*St. David's*	1761	Squire deceaſ.	
	Oxford	1757	Hume tranſl.	
	London	1777	Terrick dec.	Biſhop Thurlow
Dr. John Egerton	*Bangor*	1754	Willes tranſl.	
	Durham	1752	Trevor deceaſ.	Hon. W. Digby
Hon. Dr. B. North	*Litch & Cov.*	1768	Cornwallis tr.	
	Worceſter	1775	Johnſon deceaſ.	
	Wincheſter	1781	Thomas deceaſ.	Dr. Ogle
Lord J. Beauclerk	Hereford	1746	Egerton deceaſ.	Dr. Wetherell
Sir W. Aſhburnham	Chicheſter	1754	Mawſon tranſl.	Dr. Harward
Dr. Charles Moſs	*St. David's*	1766	Clagget tranſl.	
	Bath & Wells	1774	Willes deceaſed	Ld. Fr. Seymour
Dr. J. Shipley	St. Aſaph	1769	Newcome dec.	Mr. W. D. Shipley
Dr. Edmund Law	Carliſle	1769	Lyttelton dec.	Dr. Ekins
Dr. S. Barrington	*Landaff*	1769	Shipley tranſl.	
	Saliſbury	1782	Hume dec.	Dr. Noel
Dr. John Hinchliffe	Peterborough	1769	Lamb dec.	Dr. Ch. Tarrant
H. Dr. James Yorke	*St. David's*	1774	Moſs tranſl.	
	Glouceſter	1779	Warburton dec.	
	Ely	1781	Keene deceaſed	Dr. Cooke
Dr. John Thomas	Rocheſter	1774	Pearce dec.	Dr. Dampier
Dr. Hurd	*Litch. & Cov.*	1775	B. North tr.	
	Worceſter	1781	B. North tr.	Dr. St. John
Dr. Beilby Porteus	Cheſter	1777	Markham tran.	Dr. Will. Smith
Dr. John Butler	Oxford	1777	Lowth tranſl.	Dr. Jackſon
Dr. John Roſs	Exeter	1778	Keppel dec.	Dr. Buller
Dr. Thurlow	Lincoln	1779	Green dec.	Dr. Kay
Dr. John Warren	*St. David's*	1779	Yorke tranſl.	
	Bangor	1783	Moore tranſl.	Dr. Tho. Lloyd
Dr. J. Cornwallis	Litch. & Cov.	1781	Hurd tranſl.	Dr. Proby
Dr. Samuel Hallifax	Glouceſter	1781	Yorke tranſl.	Dr. Joſiah Tucker
Dr. Bagot	*Briſtol*	1782	Hume tranſlat.	
	Norwich	1783	Yonge dec.	Dr. P. Lloyd
Dr. Watſon	Landaff	1782	Barrington tr.	Dr. Adams, A.D.
Dr. Smalwell	St. David's	1783	Warren tranſl.	Mr. Wollaſton, P.
Dr. Wilſon	Briſtol	1783	Bagot tranſl.	Dr. Hallam
	Weſtminſter	1768		Biſhop Thomas
Mr. Claud Crigan	Sodor & Man	1784	Maſon dec.	
	Windſor	1778	Hon. &	Rev. Dr. Harley

A General Intereſt Table,

by which the Intereſt of any Sum, at any Rate, and for any Time, may be readily found.

Days	3 per Cent.				3½ per Cent.				4 per Cent.				4½ per Cent.				5 per Cent.			
	l.	s.	d.	q.	l.	s.	d.	q.	l.	s.	d.	q.	l.	s.	d.	q.	l.	s.	d.	q.
1			1	3			2	1			2	2			3	0			3	0
2			3	3			4	2			5	1			6	0			6	2
3			5	3			6	3			7	3			8	3			9	3
4			7	3			9	0			10	2			11	3		1	1	0
5			9	3			11	2		1	1	1		1	2	3		1	4	1
6			11	3		1	1	3		1	3	3		1	5	3		1	7	2
7		1	1	3		1	4	0		1	6	1		1	8	3		1	11	0
8		1	3	3		1	6	1		1	9	0		1	11	3		2	2	1
9		1	5	3		1	8	2		1	11	2		2	2	2		2	5	2
10		1	7	2		1	11	0		2	2	1		2	5	2		2	8	3
20		3	3	1		3	10	0		4	4	2		4	11	1		5	5	3
30		4	11	0		5	9	0		6	6	3		7	4	3		8	2	2
40		6	6	3		7	8	0		8	9	0		9	10	1		10	11	2
50		8	2	2		9	7	0		10	11	2		12	3	3		13	8	1
60		9	10	1		11	6	0		13	1	3		14	9	2		16	5	1
70		11	6	0		13	5	0		15	4	0		17	3	1		19	2	0
80		13	1	3		15	4	0		17	6	1		19	8	3	1	1	11	0
90		14	9	2		17	3	0		19	8	2	1	2	2	1	1	4	7	3
100		16	5	1		19	2	0	1	1	11	0	1	4	8	0	1	7	4	3
200	1	12	10	2	1	18	4	1	2	3	10	0	2	9	3	3	2	14	9	2
300	2	9	3	3	2	17	6	1	3	5	9	0	3	13	11	1	4	2	2	1

N. B. This Table contains the intereſt of 100l. for all the ſeveral days in the 1ſt column, and at the ſeveral rates of 3, 3½, 4, 4½, and 5 per cent. in the other 5 columns.

To find the intereſt of 100l. *for any other time*, as 1 year and 278 days, at 4½ per cent. Take the ſums for the ſeveral days here annexed.

The intereſt for 1 year	4	10	0	0
Againſt 200 days is -	2	9	3	3
——— 70 days -	0	17	3	1
——— 8 days -	0	1	11	3
Intereſt required -	7	18	6	3

For any other Sum than 100l. Firſt find for 100l. as above, and take it ſo many times or parts as the ſum is of 100l. Thus, to find for 355l. at 4½, for 1 year and 278 days,

Firſt, 3 times the above ſum, (for 300l.) is -	23	15	8	1
½ (for 50l.) is -	3	19	3	1
1/10 of this (for 5l.) is	0	7	11	0
So for 355 it is -	28	2	10	2

When the intereſt is required for any other rate than thoſe in the table, it may eaſily be made out from them. So ½ of 5 is 2½, ½ of 4 is 2, ½ of 3 is 1½, ⅓ of 3 is 1, 1-6th of 3 is ½, and 1-12th of 3 is ¼. And ſo, by parts, or by adding or ſubtracting, any rate may be made out.

January hath XXXI Days.

The Lunations.

Laſt quarter	the 3d day,	at 7 in the evening,
New Moon	the 11th day,	at 17 minutes paſt 1 morning,
Firſt quarter	the 17th day,	at 12 minutes paſt 5 evening,
Full Moon	the 25th day,	at 40 minutes paſt 8 morning.

M D	Sundays & other remark. days	☉ riſes	☉ ſets	☉'s declin.	☽'s declin.	☽ riſes & ſets	☽ ſouth	Clock bef. ☉
1	**Circumciſion**	8 4	3 56	22 s 58	3 n 16	10 a 30	4 m 4	4 21
B	**Sun. aft. Circum.**	8 4	3 56	22 52	2 s 14	11 39	4 43	4 49
3		8 3	3 57	22 46	7 43	morn	5 22	5 16
4		8 2	3 58	22 40	13 1	0 50	6 3	5 43
5	Old Chriſt. Day	8 2	3 58	22 33	17 54	2 4	6 46	6 10
6	**Epiph. Tw. Day**	8 1	3 59	22 25	22 8	3 23	7 35	6 37
7		8 0	4 0	22 18	25 25	4 42	8 27	7 2
8	Lucian	7 59	4 1	22 9	27 21	5 58	9 23	7 28
B	**1 S. aft. Epiph.**	7 58	4 2	22 1	27 37	7 5	10 24	7 53
10	Plow Monday	7 57	4 3	21 52	26 2	7 57	11 28	8 17
11		7 56	4 4	21 42	22 38	☽ ſets	0 a 29	8 41
12	Old N. Yr's Day	7 55	4 5	21 32	17 45	6 9	1 27	9 4
13	Cam. Term beg.	Hilary	4 6	21 22	11 46	7 40	2 20	9 26
14	Oxf. Term beg.	7 52	4 8	21 11	5 11	9 7	3 11	9 48
15		7 51	4 9	21 0	1 n 34	10 32	3 59	10 9
B	**2 S. aft. Epiph.**	7 50	4 10	20 48	8 7	11 57	4 48	10 29
17		7 49	4 11	20 36	14 8	morn	5 37	10 49
18	**Q. Char. b. d. k.**	Priſca	4 13	20 24	19 18	1 21	6 28	11 7
19		7 46	4 14	20 11	23 25	2 44	7 21	11 26
20	Fabian	7 45	4 15	19 58	26 14	4 3	8 15	11 43
21	Agnes	7 43	4 17	19 45	27 37	5 13	9 10	11 59
22	Vincent	7 42	4 18	19 31	27 32	6 12	10 4	12 15
B	**Septuageſima**	7 40	4 20	19 17	26 2	6 55	10 56	12 30
24	Hil. Term beg.	7 39	4 21	19 2	23 19	7 25	11 45	12 44
25	**Conv. St. Paul**	7 37	4 23	18 47	19 36	☽ riſes	morn	12 57
26		7 36	4 24	18 32	15 7	5 a 50	0 30	13 10
27	**Pr. Aug. Fred. b**	7 34	4 26	18 16	10 6	7 0	1 12	13 21
28		7 33	4 27	18 0	4 46	8 9	1 53	13 32
29		7 31	4 29	17 44	0 s 44	9 18	2 32	13 42
B	Sexageſ. Sunday	**K. Cha. I. beh.**		17 28	6 12	10 28	3 11	13 51
31		7 28	4 32	17 11	11 30	11 40	3 51	14 0

Days	Day increaſ.	Length of Day.	Helioc. long. ♄	Helioc. long. ♃	Helioc. long. ♂	Helioc. long. ⊖	Helioc long. ♀	Helioc. long. ☿	♄ ſets.
1	0 8	7 52	25♑59	14♓38	21♏37	11♋36	9♈24	21♓43	5 a 2
7	0 16	8 0	26 10	15 10	24 42	17 43	18 58	22♈ 3	4 40
13	0 28	8 12	26 21	15 44	27 50	23 50	28 33	27♉26	4 18
19	0 44	8 28	26 32	16 16	0♐59	29 57	8☿ 9	5♋10	riſes.
25	1 2	8 46	26 43	16 48	4 10	6♌ 2	17 46	10♌26	7 m15

1785. January.

Days	Day lig. begins	Day lig. ends	Durat. twilig.	☽'s node in	♄'s latitude	♃'s latitude	♂'s latitude	♀'s latitude	☿'s latitude
1	5 59	6 1	2 5	23♒18	0 s 11	1 s 5	0 s 5	1 s 48	1 s 46
7	5 56	6 4	2 4	22 59	0 11	1 5	0 9	1 41	0 55
13	5 52	6 8	2 2	22 40	0 12	1 4	0 13	1 32	0 n 31
19	5 46	6 14	2 0	22 21	0 12	1 4	0 17	1 18	2 19
25	5 39	6 21	1 58	22 2	0 13	1 3	0 22	1 2	3 32

Days	☉'s longitude	☽'s long.	☽'s latitude	♄'s long.	♃'s long.	♂'s long.	♀'s long.	☿'s long.
1	♑11 35 47	16♍38	2 s 11	24♑44	5♓27	10♐45	17♒13	28♑36
B	12 36 58	28 28	3 7	24 51	5 38	11 27	18 26	0♒ 4
3	13 38 9	10♎24	3 55	24 58	5 50	12 10	19 39	1 29
4	14 39 20	22 34	4 33	25 5	6 1	12 53	20 52	2 51
5	15 40 31	5♏ 1	4 59	25 12	6 13	13 36	22 5	4 10
6	16 41 43	17 49	5 12	25 19	6 24	14 19	23 18	5 26
7	17 42 54	1♐ 2	5 8	25 25	6 36	15 2	24 31	6 36
8	18 44 5	14 42	4 48	25 32	6 48	15 44	25 44	7 41
B	19 45 16	25 47	4 9	25 39	7 0	16 27	26 57	8 41
10	20 46 27	13♑14	3 14	25 46	7 12	17 10	28 10	9 36
11	21 47 37	27 56	2 5	25 53	7 25	17 53	29 23	10 24
12	22 48 47	12♒47	0 47	26 0	7 37	18 36	0♓36	11 2
13	23 49 56	27 38	0 n 35	26 8	7 49	19 19	1 48	11 27
14	24 51 4	12♓22	1 53	26 15	8 2	20 2	3 1	11 39
15	25 52 12	26 54	3 4	26 22	8 14	20 45	4 13	11 45
B	26 53 18	11♈10	4 1	26 29	8 27	21 28	5 26	11℞47
17	27 54 24	25 9	4 43	26 36	8 39	22 11	6 38	11 30
18	28 55 29	8♉49	5 8	26 43	8 52	22 54	7 50	10 2
19	29 56 32	22 12	5 15	26 50	9 5	23 38	9 2	10 24
20	♒ 0 57 34	5♊19	5 6	26 57	9 18	24 21	10 14	9 35
21	1 58 35	18 10	4 42	27 4	9 31	25 4	11 26	8 37
22	2 59 35	0♋48	4 4	27 11	9 44	25 48	12 37	7 31
B	4 0 34	13 14	3 15	27 18	9 57	26 3	13 49	6 20
24	5 1 32	25 29	2 17	27 25	10 10	27 14	15 1	5 6
25	6 2 29	7♌35	1 14	27 33	10 23	27 58	16 12	3 50
26	7 3 24	19 32	0 9	27 40	10 36	28 41	17 24	2 35
27	8 4 19	1♍24	0 s 57	27 47	10 50	29 25	18 35	1 24
28	9 5 13	13 13	2 0	27 54	11 3	0♑ 8	19 46	0 18
29	10 6 6	25 0	2 57	28 1	11 16	0 52	20 57	29♑39
B	11 6 57	6♎51	3 48	28 8	11 30	1 35	22 8	28 27
31	12 7 48	18 48	4 29	28 15	11 43	2 19	23 19	27 41

Days	♃ ſets	♂ riſes	♀ ſets	☿ ſets	♄'s declin.	♃'s declin.	♂'s declin.	♀'s declin.	☿'s declin.
1	8 a 50	5 m 46	7 a 2	5 a 15	21 s 22	10 s 33	22 s 11	17 s 24	22 s 12
7	8 30	5 42	7 18	5 38	21 16	10 6	22 47	14 57	19 32
13	8 11	5 38	7 34	5 46	21 8	9 39	23 16	12 17	16 52
19	7 53	5 34	7 52	5 23	21 1	9 10	23 36	9 23	15 26
25	7 34	5 30	8 8	4 18	20 52	8 40	23 49	6 24	15 53

February hath XXVIII Days.

The Lunations.

Laſt quarter the 2d day, at 45 minutes paſt 1 afternoon,
New Moon the 9th day, at 25 minutes paſt noon,
Firſt quarter the 16th day, at 24 minutes paſt 4 morning,
Full Moon the 24th day, at 45 minutes paſt 3 morning.

M D	Sundays & other remark. days	☉ rises		☉ ſets		☉'s declin		☽'s declin.		☽ riſes & ſets		☽ ſouth		Clock bef. ☉	
1		7	26	4	34	16	54	16 s	28	morn		4 m	33	14	7
2	**Purif. Candl. day**	7	24	4	36	16	36	20	51	0	54	5	18	14	14
3	Blaſe	7	22	4	37	16	18	24	25	2	12	6	7	14	20
4		7	21	4	39	16	0	26	50	3	29	7	1	14	25
5	Agatha	7	19	4	41	15	42	27	47	4	40	7	59	14	30
B	**Quinqu. Sunday**	7	17	4	43	15	23	27	1	5	38	9	0	14	33
7		7	15	4	45	15	5	24	26	6	21	10	2	14	36
8	**Shrove Tueſday**	7	14	4	46	14	45	20	10	6	52	11	2	14	38
9	**Aſh Wedneſday**	7	12	4	48	14	26	14	32	☽ ſets		11	59	14	39
10		7	10	4	50	14	7	7	59	6 a	31	0 a	53	14	40
11		7	8	4	52	13	47	1	1	8	3	1	45	14	40
12	Hil. Term ends	7	6	4	54	13	27	5 n	55	9	31	2	36	14	39
B	**Quad. 1 S. in Lent**	Old Candl. Day				13	6	12	22	10	59	3	27	14	37
14	Valentine	7	3	4	57	12	46	18	0	morn		4	19	14	34
15		7	1	4	59	12	25	22	32	0	26	5	12	14	31
16	**Ember Week**	6	59	5	1	12	4	25	43	1	48	6	8	14	27
17		6	57	5	3	11	43	27	28	3	4	7	3	14	22
18		6	55	5	5	11	22	27	42	4	6	7	58	14	16
19		6	53	5	7	11	1	26	32	4	52	8	51	14	10
B	**2 Sun. in Lent.**	6	51	5	9	10	39	24	7	5	27	9	40	14	3
21		6	49	5	11	10	17	20	38	5	53	10	27	13	55
22		6	47	5	13	9	56	16	22	6	12	11	10	13	47
23		6	45	5	15	9	34	11	29	6	26	11	51	13	38
24	**St. Matthias**	**Pr. Adol. Fred. b.**				9	11	6	13	☽ riſes		morn		13	29
25		6	41	5	19	8	49	0	45	7 a	8	0	31	13	18
26		6	39	5	21	8	27	4 s	45	8	7	1	11	13	8
B	**3 Sun. in Lent**	6	38	5	22	8	4	10	7	9	28	1	51	12	57
28		6	36	5	24	7	41	15	9	10	42	2	32	12	45

Days	Day increaſ.		Length of day		Helioc. long. ♄		Helioc. long. ♃		Helioc. long ♂		Helioc. long ⊖		Helioc. long. ♀		Helioc. long. ☿		♄ riſes	
1	1	24	9	8	26 ♑	56	17 ♓	26	7 ♐	56	13 ♌	9	29 ♉	0	14 ♏	47	6 m	50
7	1	46	9	30	27	7	17	59	11	12	19	13	8 ♊	39	8 ♐	44	6	28
13	2	8	9	52	27	18	18	32	14	30	25	17	18	20	29	6	6	6
19	2	30	10	14	27	29	19	5	17	50	1 ♍	20	28	1	17 ♑	12	5	45
25	2	52	10	38	27	40	19	38	21	11	7	22	7 ♋	43	4 ♒	5	5	24

Days	Day lig. begins	Day lig. ends	Durat. twilig.	☽'s node in	♄'s latitude	♃'s latitude	♂'s latitude	♀'s latitude	☿'s latitude
1	5 30	6 30	1 56	21 ♒ 39	0 s 12	1 s 3	0 s 27	0 s 38	3 n 15
7	5 22	6 38	1 53	21 20	0 13	1 3	0 31	0 15	2 10
13	5 13	6 47	1 51	21 1	0 13	1 3	0 36	0 n 9	0 59
19	5 2	6 59	1 52	20 42	0 14	1 3	0 4	0 36	0 s 5
25	4 50	7 10	1 52	20 23	0 14	1 2	0 46	1 5	0 58

Days	☉'s longitude	☽'s long.	☽'s latitude	♄'s long	♃'s long.	♂'s long.	♀'s long.	☿'s long
1	♒ 13 8 40	0 ♏ 56	4 s 58	28 ♑ 22	11 ♓ 57	3 ♑ 3	24 ♓ 30	27 ♑ 4
2	14 9 29	13 19	5 15	28 29	12 11	3 46	25 41	26 36
3	15 10 17	26 2	5 17	28 36	12 24	4 30	26 51	26 16
4	16 11 5	9 ♐ 9	5 3	28 43	12 38	5 14	28 1	26 5
5	17 11 52	22 41	4 31	28 50	12 52	5 57	29 11	26 D 2
B	18 12 37	6 ♑ 41	3 43	28 57	13 6	6 41	0 ♈ 21	26 5
7	19 13 22	21 8	2 40	29 4	13 20	7 25	1 31	26 15
8	20 14 5	5 ♒ 56	1 24	29 11	13 34	8 9	2 41	26 32
9	21 14 46	21 0	0 1	29 18	13 48	8 53	3 51	26 55
10	22 15 27	6 ♓ 10	1 n 22	29 24	14 2	9 37	5 1	27 24
11	23 16 6	21 17	2 40	29 31	14 16	10 21	6 10	27 58
12	24 16 43	6 ♈ 12	3 45	29 38	14 30	11 5	7 19	28 36
B	25 17 18	20 48	4 35	29 44	14 44	11 50	8 28	29 17
14	26 17 51	5 ♉ 1	5 6	29 51	14 58	12 34	9 37	0 ♒ 2
15	27 18 23	18 49	5 18	29 57	15 12	13 18	10 46	0 52
16	28 18 52	2 ♊ 12	5 12	0 ♒ 4	15 26	14 2	11 55	1 47
17	29 19 20	15 12	4 51	0 10	15 41	14 56	13 3	2 44
18	♓ 0 19 45	27 53	4 15	0 17	15 55	15 30	14 11	3 43
19	1 20 9	10 ♋ 18	3 28	0 23	16 9	16 14	15 19	4 44
B	2 20 31	22 29	2 33	0 29	16 23	16 58	16 27	5 48
21	3 20 50	4 ♌ 31	1 32	0 36	16 38	17 42	17 34	6 55
22	4 21 8	16 25	0 27	0 42	16 52	18 27	18 41	8 4
23	5 21 23	28 16	0 s 39	0 48	17 7	19 11	19 48	9 15
24	6 21 37	10 ♍ 4	1 43	0 55	17 21	19 55	20 55	10 27
25	7 21 50	21 53	2 42	1 1	17 36	20 40	22 2	11 41
26	8 22 0	3 ♎ 43	3 34	1 7	17 50	21 24	23 8	12 57
B	9 22 9	15 38	4 17	1 14	18 5	22 9	24 14	14 15
28	10 22 16	27 40	4 50	1 20	18 19	22 53	25 20	15 34

Days	♃ ſets	♂ riſes	♀ ſets	☿ riſes	♄'s declin.	♃'s declin.	♂'s declin.	♀'s declin	☿'s declin.
1	7 a 15	5 m 23	8 a 28	6 m 21	20 s 43	8 s 4	23 s 53	2 s 46	17 s 35
7	6 58	5 18	8 44	6 2	20 35	7 32	23 47	0 n 22	18 47
13	6 43	5 10	9 2	5 56	20 27	6 59	23 32	3 30	19 22
19	6 28	5 4	9 19	5 56	20 19	6 26	23 9	6 56	19 11
25	6 14	4 57	9 36	5 58	20 11	5 52	22 38	9 36	18 14

March hath XXXI Days. White.

The LUNATIONS.

Laſt quarter the 4th day, at 57 minutes paſt 4 morning,
New Moon the 10th day, at 33 minutes paſt 10 night,
Firſt quarter the 17th day, at 1 minute paſt 6 evening,
Full Moon the 25th day, at 8 minutes paſt 10 night.

M D	Sundays & other remark. days	☉ riſes	☉ ſets	☉'s declin.	☽'s declin.	☽ riſes & ſets	☽ South.	Clock bef. ☉
1	David	6 34	5 26	7 s 18	19 s 40	11 a 58	3 m16	12 3
2	Chad	6 32	5 28	6 56	23 26	morn	4 2	12 20
3		6 30	5 30	6 33	26 10	1 14	4 54	12 7
4		6 28	5 32	6 9	27 35	2 26	5 49	11 5
5		6 26	5 34	5 48	27 29	3 29	6 48	11 39
B	4 or Midlent S	6 24	5 36	5 23	25 41	4 17	7 47	11 2
7	Perpetua	6 22	5 38	5 0	22 13	4 52	8 46	11 10
8		6 20	5 40	4 36	17 17	5 22	9 44	10 55
9		6 18	5 42	4 13	11 11	5 38	10 39	10 39
10		6 16	5 44	3 49	4 22	☽ ſets	11 33	10 24
11		6 14	5 46	3 26	2 n 43	7 a 1	0 a 25	10 7
12	Gregory	6 12	5 48	3 2	9 35	8 32	1 18	9 51
B	5 Sun. in Lent	6 10	5 50	2 38	15 47	10 3	2 11	9 34
14		6 8	5 52	2 15	20 56	11 31	3 6	9 17
15		6 6	5 54	1 51	24 43	morn	4 3	9 0
16		6 4	5 56	1 27	27 0	0 53	5 1	8 42
17	St. Patrick	6 2	5 58	1 4	27 41	2 3	5 58	8 25
18	Edw. K. W. S.	Cam. T. ends		0 40	26 52	2 57	6 52	8 7
19	Oxf. T. ends	5 58	6 2	0 16	24 45	3 35	7 43	7 48
B	6 Sun. in Lent	Palm Sunday		0 n 7	21 32	4 4	8 31	7 30
21	Benedict	5 54	6 6	0 31	17 27	4 24	9 15	7 12
22		5 52	6 8	0 55	12 45	4 40	9 57	6 53
23		5 50	6 10	1 18	7 36	4 53	10 38	6 35
24	Maundy Thurſ.	5 48	6 12	1 42	2 12	5 6	11 17	6 16
25	Good Friday	Annunc. Lady d.		2 5	3 s 18	☽ riſes	11 57	5 57
26		5 44	6 16	2 29	8 43	7 a 25	morn	5 38
B	Eaſter day	5 42	6 18	2 52	13 52	8 39	0 38	5 20
28	Eaſter Monday	5 40	6 20	3 16	18 31	9 53	1 22	5 1
29	Eaſter Tueſday	5 38	6 22	3 39	22 28	11 10	2 8	4 42
30		5 36	6 24	4 2	25 27	morn	2 58	4 24
31		5 34	6 26	4 26	27 11	0 22	3 51	4 5

Days	Day increaſ.	Length of day	Helioc. long. ♄	Helioc long. ♃	Helioc long. ♂	Helioc. long ⊖	Helioc. long. ♀	Helioc. long ☿	♄ riſes
1	3 8	10 52	27♑47	19♓59	22♐27	11♍22	14♋12	15♐5	5 m10
7	3 32	11 16	27 58	20 32	26 52	17 22	23 56	1♑43	4 50
13	3 56	11 40	28 9	21 5	0♑20	23 21	3♌41	19 14	4 29
19	4 20	12 4	28 20	21 38	3 49	29 19	13 26	8♒27	4 8
25	4 44	12 28	28 31	22 11	7 21	5♎15	23 12	0♓29	3 49

March.

Days	Day lig. begins	Day lig. ends	Durat. twilig.	☽'s node in	♄'s latitude	♃'s latitude	♂'s latitude	♀'s latitude	☿'s latitude
1	4 43	7 18	1 52	20♒11	0 s 15	1 s 3	0 s 49	1 n 24	1 s 26
7	4 30	7 31	1 53	19 51	0 15	1 3	0 54	1 54	1 57
13	4 17	7 44	1 54	19 32	0 16	1 3	0 58	2 24	2 13
19	4 4	7 57	1 55	19 13	0 16	1 3	1 3	2 54	2 14
25	3 50	8 11	1 57	18 54	0 17	1 3	1 8	3 23	1 58

Days	☉'s longitude	☽'s long.	☽'s latitude	♄'s long.	♃'s long.	♂'s long.	♀'s long.	☿'s long.
1	♓11 22 22	9♏51	5 s 10	1♒26	18♓34	23♑38	26♈26	16♒55
2	12 22 26	22 15	5 15	1 32	18 48	24 22	27 31	18 16
3	13 22 29	4♐56	5 6	1 38	19 2	25 7	28 36	19 40
4	14 22 30	17 56	4 41	1 44	19 17	25 51	29 41	21 6
5	15 22 29	1♑18	4 1	1 50	19 31	26 36	0♉46	22 33
B	16 22 28	15 6	3 5	1 56	19 45	27 20	1 51	24 1
7	17 22 24	29 19	1 57	2 1	20 0	28 5	2 55	25 29
8	18 22 18	13♒57	0 39	2 7	20 14	28 49	3 59	26 59
9	19 22 10	28 55	0 n 43	2 12	20 29	29 34	5 3	28 30
10	20 22 1	14♓6	2 3	2 18	20 44	0♒18	6 6	0♓3
11	21 21 50	29 21	3 15	2 23	20 58	1 3	7 9	1 37
12	22 21 37	14♈29	4 12	2 29	21 13	1 48	8 11	3 12
B	23 21 22	29 20	4 51	2 34	21 28	2 33	9 13	4 49
14	24 21 4	13♉48	5 10	2 39	21 42	3 17	10 15	6 27
15	25 20 44	27 48	5 10	2 44	21 57	4 2	11 16	8 6
16	26 20 22	11♊19	4 53	2 50	22 11	4 46	12 17	9 45
17	27 19 57	24 23	4 20	2 55	22 26	5 31	13 18	11 26
18	28 19 31	7♋3	3 36	3 0	22 40	6 16	14 18	13 9
19	29 19 1	19 23	2 42	3 5	22 55	7 1	15 18	14 54
B	♈ 0 18 29	1♌28	1 43	3 10	23 9	7 46	16 18	16 40
21	1 17 56	13 23	0 40	3 15	23 24	8 31	17 17	18 26
22	2 17 19	25 13	0 s 25	3 19	23 38	9 16	18 16	20 13
23	3 16 40	6♍59	1 28	3 24	23 53	10 1	19 14	22 2
24	4 16 0	18 47	2 27	3 29	24 7	10 46	20 11	23 52
25	5 15 17	0♎39	3 19	3 33	24 22	11 31	21 8	25 44
26	6 14 32	12 35	4 4	3 37	24 36	12 16	22 4	27 37
B	7 13 45	24 39	4 38	3 41	24 50	13 1	23 0	29 31
28	8 12 55	6♏51	4 59	3 46	25 5	13 46	23 55	1♈27
29	9 12 5	19 12	5 7	3 50	25 19	14 31	24 50	3 24
30	10 11 12	1♐45	5 1	3 54	25 33	15 16	25 44	5 22
31	11 10 18	14 31	4 39	3 58	25 48	16 1	26 [illegible]	7 22

Days	♃ ſets	♂ riſes	♀ ſets	☿ riſes	♄'s declin.	♃' declin	♂' declin	♀'s declin.	☿'s declin.
1	6 a 4	4 m 52	9 a 48	5 m 5[illegible]	20 s 6	5 s 20	22 S 1[illegible]	11 n 31	17 s 9
7	5 50	4 42	10 6	5 54	19 59	4 56	21 27	14 17	14 53
13	riſes	4 32	10 22	5 51	19 52	4 2[illegible]	20 34	16 52	11 49
19	5 m 54	4 13	10 38	5 47	19 45	3 47	19 34	19 13	8 2
25	5 35	4 12	10 54	5 42	19 39	3 13	18 26	21 19	3 30

April hath XXX Days.

The Lunations.

Laſt quarter the 2d day, at 23 minutes paſt 4 afternoon,
New Moon the 9th day, at 45 minutes paſt 7 morning,
Firſt quarter the 16th day, at 48 minutes paſt 9 morning,
Full Moon the 24th day, at 12 minutes paſt 2 afternoon.

M D	Sundays & other remark. days	☉ riſes	☉ ſets	☉'s declin.	☽'s declin.	☽ riſes & ſets	☾ South	Clock bef. ☉
1		5 32	6 28	4 n 49	27 s 30	1 m 28	4 m 48	3 46
2		5 30	6 30	5 12	26 14	2 19	5 45	3 28
B	**Low Sunday**	Richard	6 32	5 35	23 24	2 58	6 43	3 10
4	St. Ambroſe	5 26	6 34	5 57	19 8	3 26	7 39	2 52
5		5 24	6 36	6 20	13 40	3 47	8 33	2 35
6	Ox. & Ca. T. beg.	5 22	6 38	6 43	7 19	4 4	9 25	2 17
7		5 20	6 40	7 5	0 29	4 20	10 17	2 0
8		5 18	6 42	7 28	6 n 26	4 36	11 9	1 43
9		5 17	6 43	7 50	12 59	☽ ſets	0 a 3	1 26
B	**2 Sun. aft. Eaſter**	5 15	6 45	8 12	18 41	8 a 59	0 59	1 10
11		5 13	6 47	8 34	23 9	10 34	1 56	0 53
12		5 11	6 49	8 56	26 7	11 51	2 54	0 37
13	Eaſter T. begins	5 9	6 51	9 18	27 24	morn	3 53	0 22
14		5 7	6 53	9 39	27 6	0 55	4 50	0 7
15		5 5	6 55	10 1	25 20	1 40	5 44	oaf. 8
16		5 3	6 57	10 22	22 23	2 13	6 33	0 23
B	**3 S. aft. Eaſter**	5 1	6 59	10 43	18 30	2 35	7 19	0 37
18		4 59	7 1	11 4	13 57	2 53	8 3	0 51
19	Alphege	4 57	7 3	11 25	8 56	3 9	8 44	1 5
20		4 56	7 4	11 45	3 37	3 20	9 23	1 18
21		4 54	7 6	12 5	1 s 50	3 32	10 3	1 31
22		4 52	7 8	12 26	7 16	3 43	10 44	1 43
23	**St. George**	4 50	7 10	12 46	12 29	3 56	11 27	1 55
B	**4 S. aft. Eaſter**	4 48	7 12	13 5	17 18	☽ riſes	morn	2 6
25	**St. Mark. Prs.**	**Mary b.**	7 14	13 25	21 27	9 2	0 13	2 17
26		4 45	7 15	13 44	24 41	10 19	1 2	2 27
27		4 43	7 17	14 3	26 43	11 26	1 54	2 37
28		4 41	7 19	14 22	27 21	morn	2 49	2 47
29		4 39	7 21	14 40	26 26	0 23	3 47	2 55
30		4 37	7 23	14 59	24 0	1 5	4 44	3 4

Days	Day increaſ.	Length of day	Helioc. long. ♄	Helioc. long. ♃	Helioc. long. ♂	Helioc. long. ⊖	Helioc. long. ♀	Helioc. long. ☿	♄ riſes
1	5 12	12 56	28 ♑ 42	22 ♓ 49	11 ♑ 29	12 ♎ 9	4 ♍ 34	1 ♈ 23	3 m 25
7	5 36	13 20	28 54	23 22	15 5	18 3	14 19	3 ♉ 31	3 4
13	5 58	13 42	29 5	23 55	18 42	23 56	24 3	10 ♊ 8	2 42
19	6 22	14 6	29 16	24 28	22 21	29 47	3 ♎ 46	17 ♋ 32	2 21
25	6 44	14 28	29 27	25 0	26 1	5 ♏ 37	13 28	21 ♌ 9	1 59

Days	Day lig. begins	Day lig ends	Durat. twilig.	☾'s node	♄'s latitude	♃'s latitude	♂'s latitude	♀'s latitude	☿'s latitude
1	3 33	8 28	2 0	18♒32	0 s 18	1 s 4	1 s 13	3 n 53	1 s 17
7	3 18	8 43	2 3	18 13	0 19	1 4	1 18	4 17	0 22
13	3 2	8 59	2 6	17 54	0 20	1 5	1 23	4 35	0 n 43
19	2 45	9 16	2 13	17 35	0 20	1 6	1 27	4 49	1 45
25	2 26	9 35	2 21	17 16	0 20	1 6	1 31	4 55	2 27

Days	☉'s longitude	☾'s long.	☾'s latitude	♄'s long.	♃'s long.	♂'s long	♀'s long.	☿'s long.
1	♈12 9 21	27♐32	4 s 3	4♒ 2	26♓ 2	16♒46	27♉32	9♈23
2	13 8 24	10♑51	3 13	4 6	26 16	17 31	28 25	11 25
B	14 7 25	24 29	2 11	4 10	26 31	18 16	29 17	13 28
4	15 6 24	8♒28	1 0	4 14	26 45	19 1	0 8	15 31
5	16 5 21	22 48	0 n 17	4 18	26 59	19 46	0 58	17 35
6	17 4 16	7♓28	1 34	4 21	27 13	20 31	1 47	19 40
7	18 3 10	22 24	2 46	4 25	27 27	21 17	2 35	21 47
8	19 2 2	7♈27	3 47	4 29	27 41	22 2	3 23	23 54
9	20 0 52	22 30	4 32	4 32	27 55	22 47	4 10	26 0
B	20 59 39	7♉22	4 58	4 35	28 9	23 32	4 56	28 5
11	21 58 24	21 54	5 4	4 39	28 23	24 17	5 41	0♉ 9
12	22 57 7	6♊ 0	4 51	4 42	28 36	25 2	6 25	2 13
13	23 55 49	19 38	4 22	4 45	28 50	25 47	7 8	4 16
14	24 54 29	2♋48	3 39	4 48	29 4	26 32	7 50	6 17
15	25 53 6	15 32	2 47	4 51	29 18	27 17	8 31	8 16
16	26 51 41	27 54	1 48	4 53	29 31	28 3	9 11	10 13
B	27 50 13	9♌59	0 46	4 56	29 45	28 48	9 50	12 8
18	28 48 43	21 53	0 s 17	4 59	29 58	29 33	10 28	13 59
19	29 47 11	3♍42	1 19	5 1	0♈12	0♓18	11 4	51 47
20	♉ 0 45 37	15 29	2 18	5 3	0 26	1 3	11 39	17 32
21	1 44 1	27 19	3 10	5 6	0 39	1 48	12 13	19 14
22	2 42 23	9♎16	3 55	5 8	0 53	2 33	12 46	20 52
23	3 40 42	21 21	4 29	5 10	1 6	3 18	13 17	22 26
B	4 38 59	3♏36	4 51	5 12	1 20	4 3	13 46	23 55
25	5 37 15	16 2	5 1	5 14	1 33	4 48	14 13	25 19
26	6 35 29	28 40	4 55	5 16	1 46	5 33	14 39	26 40
27	7 33 42	11♐29	4 35	5 18	1 59	6 18	15 3	27 57
28	8 31 53	24 29	4 0	5 19	2 12	7 3	15 26	29 9
29	9 30 3	7♑42	3 12	5 21	2 25	7 48	15 47	0♊15
30	10 28 11	21 7	2 13	5 23	2 38	8 33	16 6	1 19

Days	♃ riſes	♂ riſes	♀ ſets	☿ ſets	♄'s declin.	♃'s declin.	♂'s declin.	♀'s declin.	☿'s declin.
1	5 m 12	4 m 0	11 a 9	6 a 9	19 s 33	2 s 33	16 s 59	23 n 25	2 n 33
7	4 53	3 49	11 20	7 1	19 29	2 0	15 39	24 53	8 10
13	4 34	3 37	11 25	7 55	19 25	1 27	14 14	26 3	13 38
19	4 14	3 23	11 27	8 42	19 21	0 55	12 44	26 54	18 15
25	3 54	3 10	11 23	9 19	19 18	0 24	11 10	27 25	21 30

May hath XXXI Days.

The Lunations.

Laſt quarter the 1ſt day, at 28 minutes paſt 12 at night,
New Moon the 8th day, at 31 minutes paſt 4 afternoon,
Firſt quarter the 16th day, at 1 minute paſt 3 morning,
Full Moon the 24th day, at 28 minutes paſt 3 morning,
Laſt quarter the 31ſt day, at 3 minutes paſt 6 morning.

M D	Sundays & other remark. days	☉ riſes	☉ ſets	☉'s declin.	☾'s declin.	☽ riſes & ſets	☾ South	Clock aft. ☉
B	**Rogat. Sunday**	St.Phil.&James		15 n 17	20 s 8	1 m35	5 m39	3 11
2		4 34	7 26	15 35	15 7	1 57	6 32	3 19
3	**Inv. of the Croſs**	4 32	7 28	15 52	9 13	2 16	7 24	3 25
4		4 31	7 29	16 10	2 46	2 32	8 14	3 31
5	**Aſcenſion**	4 29	7 31	16 27	3 n 55	2 48	9 4	3 37
6	St. John A. P. L.	4 27	7 33	16 44	10 27	3 2	9 55	3 41
7		4 25	7 35	17 0	16 24	3 19	10 48	3 46
B	**S. aft. Aſcenſion**	4 24	7 36	17 16	21 21	☽ ſets	11 43	3 49
9	Eaſter T. ends	4 22	7 38	17 32	24 56	9 a 29	0 a 42	3 52
10		4 21	7 39	17 48	26 55	10 41	1 42	3 55
11		4 19	7 41	18 3	27 12	11 34	2 40	3 57
12	Oxf. Term ends	4 18	7 42	18 18	25 55	morn	3 36	3 58
13		4 16	7 44	18 33	23 18	0 13	4 28	3 59
14		4 14	7 46	18 48	19 38	0 39	5 17	3 59
B	**Whit-Sunday**	4 13	7 47	19 2	15 14	1 1	6 2	3 59
16	**Whit-Monday**	4 12	7 48	19 16	10 19	1 17	6 44	3 58
17	**Whit-Tueſday**	4 10	7 50	19 29	5 4	1 31	7 23	3 57
18	**Ember Week**	4 9	7 51	19 42	0 s 21	1 41	8 2	3 55
19	**Q. Charl. born**	Dunſt.	7 53	19 55	5 46	1 52	8 42	3 52
20		4 6	7 54	20 8	11 2	2 4	9 24	3 49
21		4 5	7 55	20 20	15 57	2 17	10 9	3 46
B	**Trinity Sunday**	Prs. Eliz. born		20 31	20 19	2 34	10 57	3 42
23		4 2	7 58	20 43	23 50	2 56	11 49	3 37
24		4 1	7 59	20 54	26 13	☽ riſes	morn	3 32
25	Oxf. Term beg.	4 0	8 0	21 5	27 13	10 a 18	0 44	3 27
26	**Auguſtin**	Corpus Chriſti		21 15	26 39	11 4	1 41	3 21
27	**Trin. T. beg.**	Venerable Bede		21 25	24 30	11 37	2 39	3 14
28		3 56	8 4	21 35	20 54	morn	3 35	3 7
B	**1 Sun. aft. Trin.**	K. Ch. II. reſt.		21 44	16 6	0 2	4 29	3 0
30		3 54	8 6	21 53	10 25	0 21	5 20	2 52
31		3 53	8 7	22 1	4 9	0 36	6 9	2 43

Days	Day increaſ.	Length of day	Helioc. long. ♄	Helioc. long. ♃	Helioc. long. ♂	Helioc. long. ⊖	Helioc. long. ♀	Helioc. long. ☿	♄ riſes
1	7 4	14 48	29♑38	25♓33	29♑43	11♏26	23♎ 8	19♍10	1 m37
7	7 26	15 10	29 49	26 6	3♒26	17 15	2♏46	12♎24	1 14
13	7 44	15 28	0♒ 0	26 39	7 10	23 2	12 23	2♏18	0 51
19	8 2	15 46	0 11	27 12	10 56	28 48	21 58	20 8	0 27
25	8 16	16 0	0 22	27 45	14 42	4♐34	1♐32	6♐54	0 3

Days	Day lig. begins	Day lig. ends	Durat. twilig.	☾'s node in	♄'s latitude	♃'s latitude	♂'s latitude	♀'s latitude	☿'s latitude
1	2 4	9 58	2 34	16♒57	0 s 2	1 s 7	1 s 35	4 n 50	2 n 39
7	1 46	10 16	2 41	16 38	0 21	1 8	1 39	4 33	2 13
13	1 19	10 44	3 0	16 19	0 22	1 9	1 43	3 59	1 9
19	0 43	11 22	4 29	16 0	0 23	1 10	1 46	3 6	0 s 26
25	No	real	night.	15 40	0 24	1 11	1 49	1 55	2 9

Days	☉'s longitude	☾'s long.	☽'s latitude	♄'s long.	♃'s long.	♂'s long.	♀'s long.	☿'s long.
B	♉11 26 18	4♒45	1 s 5	5♒24	2♈51	9♓18	16♊23	2♊17
2	12 24 24	18 38	0 n 9	5 25	3 4	10 3	16 39	3 11
3	13 22 28	2♓46	1 22	5 26	3 17	10 48	16 53	3 59
4	14 20 31	17 8	2 32	5 27	3 29	11 33	17 5	4 42
5	15 18 33	1♈42	3 33	5 28	3 42	12 18	17 14	5 20
6	16 16 33	16 23	4 20	5 29	3 55	13 3	17 20	5 53
7	17 14 32	1♉5	4 50	5 30	4 7	13 48	17 22	6 22
B	18 12 30	15 41	5 1	5 30	4 19	14 33	17℞23	6 46
9	19 10 26	0♊2	4 52	5 31	4 32	15 17	17 22	7 4
10	20 8 21	14 2	4 26	5 31	4 44	16 2	17 20	7 17
11	21 6 14	27 38	3 45	5 31	4 56	16 47	17 16	7 25
12	22 4 5	10♋48	2 54	5 32	5 8	17 31	17 9	7℞28
13	23 1 54	23 33	1 55	5 32	5 20	18 16	16 59	7 27
14	23 59 42	5♌57	0 52	5℞32	5 32	19 1	16 47	7 22
B	24 57 28	18 5	0 s 13	5 32	5 44	19 46	16 33	7 11
16	25 55 13	0♍1	1 15	5 32	5 55	20 30	16 16	6 55
17	26 52 56	11 51	2 14	5 31	6 7	21 15	15 56	6 35
18	27 50 37	23 40	3 7	5 31	6 19	22 0	15 34	6 12
19	28 48 17	5♎33	3 52	5 31	6 30	22 44	15 9	5 47
20	29 45 55	17 35	4 27	5 30	6 42	23 29	14 42	5 19
21	♊0 43 31	29 48	4 51	5 30	6 53	24 13	14 13	4 48
B	1 41 6	12♏15	5 1	5 30	7 5	24 57	13 43	4 15
23	2 38 39	24 57	4 57	5 29	7 16	25 42	13 12	3 41
24	3 36 11	7♐53	4 38	5 28	7 27	26 26	12 40	3 8
25	4 33 43	21 2	4 3	5 27	7 38	27 10	12 6	2 35
26	5 31 14	4♑24	3 15	5 26	7 49	27 54	11 31	2 2
27	6 28 45	17 57	2 15	5 25	7 59	28 39	10 55	1 30
28	7 26 14	1♒40	1 7	5 24	8 10	29 23	10 19	0 59
B	8 23 42	15 30	0 n 7	5 22	8 20	0♈7	9 42	0 31
30	9 21 9	29 29	1 20	5 21	8 31	0 52	9 4	0 6
31	10 18 36	13♓34	2 30	5 20	8 41	1 36	8 25	29♉44

Days	♃ rises	♂ rises	♀ sets	☿ sets	♄'s declin.	♃'s declin.	♂'s declin.	♀'s declin.	☿'s declin.
1	3 m 33	2 m 55	11 a 10	9 a 38	19 s 17	0 n 7	9 s 33	27 n 35	23 n 14
7	3 11	2 41	10 50	9 35	19 16	0 36	7 54	27 24	23 35
13	2 50	2 2[illegible]	10 21	9 11	19 16	1 4	6 13	26 48	22 43
19	2 29	2 9	9 42	8 28	19 17	1 31	4 30	25 44	20 53
25	2 7	1 53	8 52	7 32	19 18	1 57	2 47	24 11	18 36

June hath XXX Days.

The Lunations.

New Moon the 7th day, at 44 minutes paſt 1 morning,
Firſt quarter the 14th day, at 34 minutes paſt 8 evening,
Full Moon the 22d day, at 17 minutes paſt 2 afternoon,
Laſt quarter the 29th day, at 27 minutes paſt 10 morning.

M D	Sundays & other remark. days	☉ riſes	☉ ſets	☉'s declin.	☾'s declin.	☽ riſes & ſets	☾ South	Clock aft. ☉
1	Nicomede	3 52	8 8	22 n 9	2 n 20	0 m 51	6 m 57	2 34
2		3 51	8 9	22 17	8 44	1 5	7 46	2 25
3	K. Geo. III. born	3 51	8 9	22 25	14 41	1 20	8 36	2 15
4		3 50	8 10	22 32	19 50	1 39	9 29	2 5
B	2 Sun. aft. Trin. Pr. Ern. Aug. bb.	[illegible]	[illegible]	22 38	23 49	2 7	10 25	1 55
6		3 48	8 12	22 44	26 20	2 39	11 24	1 44
7		3 48	8 12	22 50	27 12	☽ ſets	0 a 23	1 33
8		3 47	8 13	22 55	26 27	10 a 6	1 21	1 21
9	Prs. Am. b. 1711	3 46	8 14	23 0	24 15	10 38	2 16	1 10
10		3 46	8 14	23 5	20 52	11 1	3 6	0 58
11	St. Barnabas	3 45	8 15	23 9	16 38	11 17	3 52	0 46
B	3 Sun. aft. Trin.	3 45	8 15	23 13	11 48	11 32	4 35	0 34
13		3 44	8 16	23 16	6 36	11 43	5 15	0 21
14		3 44	8 16	23 19	1 13	11 54	5 54	0 9
15	Trin. Term ends	3 44	8 16	23 22	4 s 12	morn	6 33	obef. 4
16		3 43	8 17	23 24	9 30	0 5	7 14	0 17
17	St. Alban	3 43	8 17	23 25	14 30	0 18	7 57	0 3
18		3 43	8 17	23 27	19 1	0 33	8 43	0 4
B	4 Sun. aft. Trin.	3 43	8 17	23 28	22 49	0 52	9 34	0 5
20	Tranſ. Ed. K W S	3 43	8 17	23 28	25 36	1 19	10 28	1 8
21	Longeſt day	3 43	8 17	23 28	27 3	1 56	11 25	1 2
22		3 43	8 17	23 28	26 58	☽ riſes	morn	1 3
23		3 43	8 17	23 27	25 13	9 a 33	0 24	1 47
24	St. John Bapt.	3 43	8 17	23 26	21 55	10 1	1 22	1 59
25		3 43	8 17	23 24	17 17	10 22	2 18	2 1
B	5 Sun. aft. Trin.	3 44	8 16	23 22	11 40	10 38	3 11	2 2
27		3 44	8 16	23 20	5 25	10 53	4 1	2 37
28	St. Peter.	3 44	8 16	23 17	1 n 5	11 7	4 50	2 49
29		3 45	8 15	23 14	7 30	11 22	5 39	3
30		3 45	8 15	23 10	13 30	11 40	6 28	3 1

Days	Day increaſ.	Length of day	Helioc. long. ♄	Helioc. long. ♃	Helioc. long. ♂	Helioc. long. ⊖	Helioc. long. ♀	Helioc. long. ☿	♄ riſes
1	8 32	16 16	0 ♒ 35	28 ♓ 23	19 ♒ 7	11 ♐ 16	12 ♐ 40	26 ♐ 11	11 a 3
7	8 40	16 24	0 46	28 56	22 55	17 0	22 11	13 ♑ 19	11
13	8 48	16 32	0 57	29 29	26 44	22 44	1 ♑ 41	1 ♒ 53	10 39
19	8 50	16 34	1 8	0 ♈ 2	0 ♓ 32	28 28	11 10	22 51	10 14
25	8 50	16 34	1 19	0 35	4 20	4 ♑ 11	20 49	17 ♓ 28	9 49

Days	Day lig. begins	Day lig. ends	Durat. twilig.	☽'s node in	♄'s latitude	♃'s latitude	♂'s latitude	♀'s latitude	☿'s latitude
1				15 ♒ 18	0 s 24	1 s 12	1 s 52	0 n 19	3 s 38
7				14 59	0 25	1 13	1 54	1 s 5	4 8
13	No	real	night.	14 40	0 26	1 15	1 56	2 15	3 57
19				14 21	0 27	1 16	1 57	3 10	3 16
25				14 2	0 27	1 18	1 58	3 48	2 14

Days	☉'s longitude			☾'s long.	☾'s latitude	♄'s long.	♃'s long.	♂'s long.	♀'s long.	☿'s long.
1	♊ 11	16	3	27 ♓ 46	3 n 30	5 ♒ 18	8 ♈ 51	2 ♈ 20	7 ♊ 46	29 ♉ 26
2	12	13	29	12 ♈ 3	4 18	5 16	9 1	3 4	7 8	29 12
3	13	10	54	26 21	4 50	5 14	9 11	3 47	6 31	29 1
4	14	8	19	16 ♉ 37	5 4	5 12	9 21	4 31	5 56	28 53
B	15	5	43	24 47	4 59	5 10	9 31	5 14	5 23	28 D 51
6	16	3	6	8 ♊ 44	4 36	5 8	9 41	5 58	4 51	28 53
7	17	0	29	22 26	3 58	5 6	9 50	6 41	4 22	29 0
8	17	57	51	5 ♋ 48	3 7	5 4	9 59	7 25	3 54	29 11
9	18	55	12	18 49	2 7	5 1	10 8	8 8	3 27	29 27
10	19	52	32	1 ♌ 30	1 3	4 59	10 17	8 52	3 2	29 47
11	20	49	51	13 53	0 s 3	4 56	10 26	9 35	2 39	0 ♊ 12
B	21	47	10	26 1	1 8	4 54	10 35	10 19	2 17	0 41
13	22	44	28	7 ♍ 58	2 9	4 51	10 44	11 2	1 58	1 15
14	23	41	45	19 49	3 4	4 49	10 53	11 45	1 41	1 53
15	24	39	1	1 ♎ 40	3 51	4 46	11 2	12 28	1 26	2 35
16	25	36	16	13 35	4 28	4 43	11 10	13 11	1 13	3 21
17	26	33	30	25 40	4 54	4 40	11 18	13 [illegible]	[illegible] 3	4 11
18	27	30	44	7 ♏ 58	5 7	4 37	11 26	14 37	0 57	5 5
B	28	27	57	20 32	5 6	4 34	11 34	15 19	0 55	6 4
20	29	25	9	3 ♐ 25	4 49	4 31	11 42	16 2	0 D 54	7 7
21	♋ 0	22	21	16 37	4 17	4 28	11 49	16 44	0 55	8 13
22	1	19	33	0 ♑ 7	3 30	4 24	11 57	17 27	0 57	9 22
23	2	16	45	13 52	2 29	4 21	12 4	18 9	1 1	10 35
24	3	13	56	27 50	1 19	4 18	12 12	18 51	1 8	11 52
25	4	11	7	11 ♒ 57	0 3	4 14	12 19	19 33	1 17	13 13
B	5	8	18	26 9	1 n 14	4 11	12 26	20 16	1 28	14 37
27	6	5	29	10 ♓ 24	2 26	4 7	12 33	20 58	1 41	16 5
28	7	2	40	24 39	3 30	4 3	12 39	21 40	1 56	17 37
29	7	59	52	8 ♈ 51	4 20	4 0	12 46	22 22	2 13	19 13
30	8	57	4	22 58	4 54	3 56	12 52	23 4	2 33	20 51

Days	♃ riſes	♂ riſes	♀ riſes	☿ riſes	♄'s declin.	♃'s declin.	♂'s declin.	♀'s declin.	☿'s declin.
1	1 m40	1 m33	3 m38	3 m40	19 s 22	2 n 24	0 s 47	21 n 56	16 n 31
7	1 17	1 16	3 14	3 20	19 25	2 47	0 n 55	19 58	15 56
13	0 54	0 58	2 51	3 0	19 29	3 7	2 36	18 22	16 33
19	0 30	0 41	2 30	2 45	19 34	3 25	4 14	17 16	18 8
25	0 7	0 24	2 11	2 37	19 40	3 41	5 50	16 43	20 12

The Lunations.

New Moon the 6th day, at 28 minutes paſt noon,
Firſt quarter the 14th day, at 34 minutes paſt 1 afternoon,
Full Moon the 21ſt day, at 26 minutes paſt 11 at night,
Laſt quarter the 28th day, at 17 minutes paſt 3 afternoon.

M D	Sundays & other remark. days	☉ rises		☉ ſets		☉'s declin.		☾'s declin		☽ riſes & ſets		☾ South		Clock bef. ☉	
1		3	46	8	14	23 n	6	18 n	46	morn		7 m	19	3	24
2	Viſit. of the V. M	3	46	8	14	23	1	22	58	0	3	8	13	3	36
B	6 Sun. aft. Trin.	Dog days begin				22	57	25	50	0	32	9	9	3	47
4	Tranſ. St. Mart.	3	47	8	13	22	51	27	9	1	11	10	7	3	58
5	Cam. Comm.	3	48	8	12	22	46	26	52	2	5	11	4	4	8
6		3	49	8	11	22	40	25	7	☽ ſets		11	59	4	18
7	Tho. a Becket	3	49	8	11	22	33	22	5	9 a	0	0 a	53	4	28
8	Camb. T. ends	3	50	8	10	22	26	18	4	9	18	1	40	4	38
9		3	51	8	9	22	19	13	21	9	33	2	24	4	47
B	7 Sun. aft. Trin.	3	52	8	8	22	11	8	13	9	46	3	6	4	55
11	Oxford Act	3	53	8	7	22	3	2	51	9	57	3	46	5	
12		3	54	8	6	21	55	2 s	35	10	8	4	25	5	11
13		3	55	8	5	21	46	7	54	10	20	5	5	5	18
14		3	56	8	4	21	37	12	59	10	32	5	46	5	2
15	Swithin	3	57	8	3	21	28	17	38	10	50	6	30	5	3
16	Oxf. Term ends	3	58	8	2	21	18	21	40	11	12	7	18	5	37
B	8 Sun. [illegible] Trin	3	59	8	1	21	8	24	48	11	44	8	10	5	42
18		4	0	8	0	20	57	26	45	morn		9	6	5	47
19		4	2	7	58	20	46	27	15	0	29	10	5	5	5
20	Margaret	4	3	7	57	20	35	26	6	1	32	11	4	5	54
21		4	4	7	56	20	23	23	18	☽ riſes		morn		5	57
22	Mary Magd.	4	5	7	55	20	11	19	1	8 a	21	0	2	5	59
23		4	7	7	53	19	59	13	32	8	40	0	58	6	
B	9 Sun. aft. Trin.	4	8	7	52	19	46	7	15	8	57	1	51	6	
25	St. James	4	10	7	50	19	33	0	36	9	11	2	42	6	
26	St. Anne, MVM.	4	11	7	49	19	20	6 n	1	9	26	3	32	6	
27		4	12	7	48	19	6	12	15	9	43	4	22	6	
28		4	14	7	46	18	53	17	45	10	3	5	13	6	
29		4	15	7	45	18	38	22	12	10	31	6	6	6	
30		4	17	7	43	18	24	25	22	11	7	7	2	5	5
B	10 S. aft. Trin.	4	18	7	42	18	9	27	2	11	57	7	59	5	5

Days	Day decreaſ.		Length of day		Helioc. long. ♄		Helioc. long. ♃		Helioc. long. ♂		Helioc. long. ⊖		Helioc. long. ♀		Helioc. long. ☿		♄ riſes	
1	0	6	16	28	1 ♒	30	1 ♈	8	8 ♓	9	9 ♑	54	0 ♒	8	16 ♈	57	9 a	2
7	0	12	16	22	1	41	1	41	11	58	15	38	9	37	21 ♉	38	8	5
13	0	24	16	10	1	52	2	14	15	45	21	21	19	6	29 ♊	17	8	3
19	0	38	15	56	2	2	2	47	19	33	27	5	28	36	5 ♌	13	8	
25	0	54	15	40	2	33	3	20	23	19	2 ♒	48	8 ♓	6	6 ♍	1	ſets	

Days	Day lig. begins	Day lig. ends	Durat. twilig.	☾'s node in	♄'s latitude	♃'s latitude	♂'s latitude	♀'s latitude	☿'s latitude
1	No	real	night	13 ♒ 43	0 s 23	1 s 19	1 s 59	4 s 11	1 s 0
7				13 24	0 29	1 21	1 59	4 23	0 n 11
13				13 5	0 29	1 23	1 59	4 25	1 8
19				12 46	0 30	1 24	1 58	4 18	1 41
25	0 45	11 7	3 17	12 27	0 30	1 26	1 56	4 7	1 46

Days	☉'s longitude	☾'s long.	☾'s latitude	♄'s long.	♃'s long.	♂'s long.	♀'s long.	☿'s long.
1	♋ 9 54 17	7 ♉ 1	5 n 11	3 ♒ 52	12 ♈ 58	23 ♈ 46	2 ♊ 55	22 ♊ 33
2	10 51 30	20 55	5 9	3 48	13 4	24 23	3 19	24 18
B	11 48 43	4 ♊ 38	4 49	3 44	13 10	25 10	3 44	26 6
4	12 45 56	18 9	4 14	3 40	13 15	25 51	4 10	27 57
5	13 43 10	1 ♋ 26	3 25	3 36	13 21	26 32	4 37	29 51
6	14 40 24	14 27	2 26	3 32	13 27	27 13	5 5	1 ♋ 47
7	15 37 38	27 12	1 21	3 28	13 32	27 54	5 35	3 46
8	16 34 52	9 ♌ 42	0 14	3 24	13 37	28 35	6 7	5 47
9	17 32 6	21 58	0 s 54	3 20	13 41	29 16	6 40	7 50
B	18 29 20	4 ♍ 2	1 58	3 15	13 46	29 57	7 15	9 55
11	19 26 35	15 58	2 56	3 11	13 50	0 ♉ 37	7 51	12 1
12	20 23 50	27 49	3 46	3 7	13 55	1 17	8 28	14 8
13	21 21 5	9 39	4 26	3 2	13 59	1 57	9 6	16 17
14	22 18 20	21 35	4 56	2 58	14 3	2 37	9 45	18 26
15	23 15 35	3 ♏ 39	5 12	2 54	14 7	3 17	10 2[illegible]	20 34
16	24 12 50	15 58	5 15	2 49	14 10	3 57	11 6	22 42
B	25 10 5	28 34	5 3	2 45	14 14	4 37	11 48	24 50
18	26 7 20	11 ♐ 32	4 36	2 41	14 17	5 17	12 31	26 57
19	27 4 35	24 52	3 53	2 36	14 20	5 56	13 16	29 3
20	28 1 51	8 ♑ 34	2 55	2 32	14 23	6 35	14 2	1 ♌ 8
21	28 59 7	22 38	1 46	2 27	14 25	7 14	14 48	3 12
22	29 56 24	6 ♒ 59	0 28	2 23	14 28	7 53	15 35	5 16
23	♌ 0 53 42	21 31	0 n 52	2 18	14 30	8 32	16 22	7 18
B	1 51 1	6 ♓ 10	2 10	2 14	14 32	9 11	17 10	9 18
25	2 48 21	20 48	3 19	2 9	14 34	9 50	17 58	11 17
26	3 45 41	5 ♈ 21	4 14	2 4	14 36	10 28	18 47	13 14
27	4 43 3	19 44	4 53	2 0	14 37	11 6	19 37	15 9
28	5 40 26	3 ♉ 54	5 14	1 56	14 38	11 44	20 28	17 3
29	6 37 50	17 49	5 16	1 51	14 39	12 22	21 20	18 55
30	7 35 15	1 ♊ 28	5 0	1 47	14 40	13 0	22 13	20 46
B	8 32 42	14 51	4 27	1 43	14 41	13 37	23 7	22 36

Days	♃ rises	♂ rises	♀ rises	☿ rises	♄'s declin.	♃'s declin.	♂'s declin.	♀'s declin.	☿'s declin.
1	11 a 41	0 m 8	1 m 51	2 m 36	19 s 45	3 n 55	7 n 23	16 n 39	22 n 15
7	11 18	11 a 48	1 36	2 51	19 52	4 6	8 53	16 56	23 36
13	10 54	11 31	1 23	3 22	19 59	4 15	10 19	17 28	23 36
19	10 30	11 15	1 11	4 3	20 6	4 22	11 40	18 9	22 1
25	10 7	11 0	1 3	4 49	20 12	4 26	12 56	18 49	19 7

Auguſt hath XXXI Days. White.

The Lunations.

New Moon the 5th day, at 32 minutes paſt 1 morning,
Firſt quarter the 13th day, at 30 minutes paſt 5 morning,
Full Moon the 19th day, at 47 minutes paſt 7 morning,
Laſt quarter the 26th day, at 9 minutes paſt 10 at night.

M D	Sundays & other remark. days	☉ riſes	☉ ſets	☉'s declin.	☽'s declin.	☾ riſes & ſets	☾ South	Clock bef. ☉
1	Lammas	4 20	7 40	17 n 54	27 n 9	morn	8 m 57	5 52
2		4 22	7 38	17 38	25 46	0 56	9 51	5 48
3		4 23	7 37	17 23	23 5	2 10	10 44	5 43
4		4 25	7 35	17 7	19 21	3 25	11 33	5 38
5		4 26	7 34	16 50	14 50	☽ ſets	0 a 19	5 32
6	Transfiguration	4 28	7 32	16 34	9 48	7 a 52	1 2	5 26
B	11 S. aft. Trin.	Prs. Amelia b.		16 17	4 29	8 5	1 43	5 19
8		4 31	7 29	16 0	0 s 57	8 15	2 22	5 11
9		4 33	7 27	15 43	6 19	8 26	3 1	5 3
10	St. Laurence	4 35	7 25	15 25	11 28	8 38	3 42	4 55
11	Prs. Brunſw. bo	Dog Days end		15 7	16 14	8 55	4 25	4 45
12	Pr. Wales born	Old Lamm. day		14 49	20 25	9 15	5 11	4 35
13		4 40	7 20	14 31	23 49	9 42	6 0	4 25
B	12 S. aft. Trin.	4 42	7 18	14 12	26 11	10 21	6 54	4 14
15	Aſſum. B.V.M.	4 44	7 16	13 53	27 15	11 14	7 51	4 2
16	Pr. Fred. born	4 45	7 15	13 34	26 47	morn.	8 48	3 50
17		4 47	7 13	13 15	24 42	0 22	9 47	3 38
18		4 49	7 11	12 56	21 1	1 46	10 44	3 25
19		4 51	7 9	12 36	15 58	☽ riſes	11 40	3 11
20		4 53	7 7	12 16	9 53	7 a 4	morn	2 57
B	13 S. aft. Trin.	Pr. Wm. Hen. b.		11 56	3 10	7 20	0 34	2 42
22		4 56	7 4	11 36	3 n 43	7 36	1 26	2 27
23		4 58	7 2	11 15	10 19	7 52	2 18	2 12
24	St. Bartholomew	5 0	7 0	10 56	16 15	8 13	3 10	1 56
25		5 2	6 58	10 34	21 8	8 40	4 4	1 39
26		5 4	6 56	10 15	24 42	9 12	5 0	1 23
27		5 6	6 54	9 52	26 45	9 58	5 58	1 6
B	14 S. aft. Trin.	St. Auguſtine		9 31	27 13	10 56	6 56	0 48
29	Behead. J. Bap.	5 9	6 51	9 9	26 11	morn	7 52	0 31
30		5 11	6 49	8 48	23 48	0 5	8 45	0 13
31		5 13	6 47	8 26	20 22	1 18	9 35	0 af. 5

Days	Day decreaſ.	Length of day	Helioc. long. ♄	Helioc. long. ♃	Helioc. long. ♂	Helioc. long. ⊖	Helioc. long. ♀	Helioc. long. ☿	♄ ſets
1	1 14	15 20	2 ♒ 26	3 ♈ 58	27 ♓ 42	9 ♒ 30	19 ♓ 13	5 ♎ 14	3 m 43
7	1 34	15 0	2 37	4 31	1 ♈ 26	15 15	28 45	26 4	3 18
13	1 54	14 40	2 48	5 4	5 9	21 1	8 ♈ 17	14 ♏ 28	2 53
19	2 16	14 18	2 59	5 37	8 50	26 48	17 51	1 ♐ 29	2 28
25	2 38	13 56	3 10	6 10	12 30	2 ♓ 35	27 25	17 59	2 5

Auguſt.

Days	Day lig. begins	Day lig. ends	Durat. twilig.	☾'s node in	♄'s latitude	♃'s latitude	♂'s latitude	♀'s latitude	☿'s latitude
1	1 24	10 34	2 55	12♒ 4	0 s 31	1 s 28	1 s 54	3 s 46	1 n 25
7	1 47	10 11	2 42	11 45	0 31	1 30	1 52	3 25	0 59
13	2 9	9 49	2 30	11 26	0 32	1 31	1 48	3 2	0 4
19	2 29	9 30	2 21	11 7	0 32	1 33	1 45	2 36	0 49
25	2 47	9 12	2 14	10 48	0 32	1 34	1 40	2 9	1 45

Days	☉'s longitude	☾'s long.	☾'s latitude	♄'s long.	♃'s long.	♂'s long.	♀'s long.	☿'s long.
1	♌ 9 30 9	27♊59	3 n 41	1♒39	14♈42	14♉14	24♊ 1	24♌24
2	10 27 39	10♋52	2 45	1 34	14 42	14 51	24 55	26 10
3	11 25 9	23 32	1 41	1 30	14℞42	15 28	25 50	27 54
4	12 22 40	5♌59	0 34	1 25	14 42	16 5	26 45	29 37
5	13 20 13	18 15	0 s 34	1 21	14 42	16 42	27 41	1♍18
6	14 17 47	0♍21	1 40	1 16	14 41	17 19	28 37	2 58
B	15 15 22	12 20	2 40	1 12	14 41	17 55	29 33	4 36
8	16 12 58	24 12	3 33	1 8	14 40	18 31	0♋30	6 12
9	17 10 34	6♎ 2	4 17	1 4	14 40	19 6	1 27	7 47
10	18 8 11	17 52	4 49	1 0	14 39	19 41	2 25	9 21
11	19 5 49	29 47	5 10	0 56	14 37	20 16	3 23	10 53
12	20 3 28	11♏50	5 17	0 52	14 35	20 51	4 22	12 23
13	21 1 8	24 6	5 10	0 48	14 33	21 26	5 22	13 52
B	21 58 50	6♐39	4 49	0 44	14 31	22 0	6 22	15 19
15	22 56 33	19 34	4 12	0 40	14 28	22 34	7 22	16 45
16	23 54 16	2♑52	3 21	0 36	14 26	23 8	8 22	18 9
17	24 52 0	16 37	2 17	0 32	14 23	23 42	9 23	19 31
18	25 49 45	0♒48	1 2	0 28	14 20	24 16	10 24	20 52
19	26 47 32	15 21	0 n 18	0 24	14 17	24 50	11 25	22 11
20	27 45 20	0♓13	1 38	0 20	14 14	25 23	12 26	23 28
B	28 43 10	15 14	2 53	0 17	14 10	25 56	13 28	24 43
22	29 41 1	0♈17	3 56	0 13	14 7	26 28	14 30	25 57
23	♍ 0 38 54	15 12	4 42	0 10	14 3	27 0	15 33	27 9
24	1 36 49	29 52	5 8	0 6	13 59	27 32	16 36	28 19
25	2 34 46	14♉12	5 15	0 3	13 55	28 4	17 39	29 26
26	3 32 44	28 10	5 3	0 0	13 51	28 35	18 43	0♎31
27	4 30 44	11♊45	4 34	29♑56	13 46	29 6	19 47	1 34
B	5 28 46	24 58	3 51	29 53	13 41	29 37	20 51	2 35
29	6 26 51	7♋51	2 57	29 50	13 36	0♊ 7	21 55	3 33
30	7 24 58	20 28	1 56	29 47	13 31	0 37	22 59	4 28
31	8 23 6	2♌50	0 51	29 44	13 26	1 7	24 3	5 20

Days	♃ riſes	♂ riſes	♀ riſes	☿ ſets	♄'s declin.	♃'s declin.	♂'s declin.	♀'s declin.	☿'s declin.
1	9 a 40	10 a 41	0 m 57	8 a 22	20 s 19	4 n 27	14 n 19	19 n 34	14 n 45
7	9 17	10 26	0 54	8 14	20 25	4 25	15 25	20 3	10 37
13	8 55	10 12	0 55	7 3	20 31	4 20	16 24	20 20	6 25
19	8 32	9 58	0 57	7 49	20 36	4 13	17 18	20 23	2 21
25	8 9	9 44	1 3	7 34	20 41	4 3	18 0	20 10	1 s 23

September hath XXX Days.

The Lunations.

New Moon	the 3d day,	at 57 minutes paſt 4 afternoon,
Firſt quarter	the 11th day,	at 1 minute paſt 8 evening,
Full Moon	the 18th day,	at 3 minutes paſt 4 afternoon,
Laſt quarter	the 25th day,	at 27 minutes paſt 8 morning.

M D	Sundays & other remark. days	☉ riſes	☉ ſets	☉'s declin.	☾'s declin.	☽ riſes & ſets	☾ South	Clock aft. ☉
1	Giles	5 15	6 4	8 n 4	16 n 5	2 m34	10 m23	0 24
2	Lond. bur. 1666	5 17	6 43	7 42	11 13	3 48	11 6	0 43
3		5 19	6 41	7 20	5 59	☽ ſets	11 48	1 2
B	15 S. aft. Trin.	5 21	6 39	6 58	0 35	6 a 31	0 a 28	1 21
5		5 23	6 37	6 36	4 s 48	6 44	1 8	1 41
6		5 25	6 35	6 13	10 0	6 57	1 48	2 1
7	Enurchus	5 27	6 33	5 51	14 53	7 10	2 30	2 21
8	Nativ. B.V.M.	5 29	6 31	5 28	19 13	7 28	3 14	2 41
9		5 31	6 29	5 5	22 49	7 51	4 1	3 1
10		5 32	6 28	4 43	25 28	8 24	4 52	3 22
B	16 S. aft. Trin.	5 34	6 26	4 20	26 56	9 9	5 45	3 43
12		5 36	6 24	3 57	27 2	10 11	6 42	4 4
13		5 38	6 22	3 34	25 37	11 27	7 40	4 24
14	Holy Croſs	5 40	6 20	3 11	22 40	morn	8 36	4 45
15		5 42	6 18	2 47	18 18	0 51	9 32	5 6
16		5 44	6 16	2 24	12 44	2 21	10 26	5 27
17	Lambert	5 46	6 14	2 1	6 18	3 53	11 19	5 49
B	17 S. aft. Trin.	5 48	6 12	1 38	0 n 35	☽ riſes	morn	6 10
19		5 50	6 10	1 14	7 29	6 a 6	0 12	6 31
20		5 52	6 8	0 51	13 53	6 24	1 6	6 52
21	St. Matthew	Ember Week		0 28	19 22	6 48	2 1	7 13
22	K. Geo. III. cro.	5 56	6 4	0 4	23 32	7 19	2 58	7 34
23		5 58	6 2	0 s 19	26 8	8 2	3 57	7 54
24		6 0	6 0	0 43	27 5	8 59	4 57	8 15
B	18 S. aft. Trin.	6 2	5 58	1 6	26 26	10 7	5 56	8 35
26	St. Cyprian	6 4	5 56	1 30	24 22	11 20	6 52	8 55
27		6 6	5 54	1 53	21 10	morn	7 43	9 15
28		6 8	5 52	2 16	17 6	0 34	8 30	9 35
29	St. Michael. Prs. Ch. Aug. Mat. b.			2 40	12 24	1 46	9 14	9 54
30	St. Jerome	6 12	5 48	3 3	7 17	2 58	9 56	10 13

Days	Day decreaſ.	Length of day	Helioc. long. ♄	Helioc. long. ♃	Helioc. long. ♂	Helioc. long. ⊖	Helioc. long. ♀	Helioc. long. ☿	♄ ſets
1	3 4	13 30	3♒23	6♈49	16♈45	9♓21	8♉37	7♑35	1 m37
7	3 28	13 6	3 34	7 22	20 21	15 11	18 14	25 34	1 14
13	3 50	12 44	3 45	7 55	23 56	21 2	27 52	15♒38	0 52
19	4 14	12 20	3 56	8 28	27 29	26 53	7♊31	8♓53	0 29
25	4 38	11 56	4 7	9 1	1♉0	2♈46	17 11	6♈38	0 7

Days	Day lig. begins	Day lig. ends	Durat. twilig.	☾'s node in	♄'s latitude	♃'s latitude	♂'s latitude	♀'s latitude	☿'s latitude
1	3 7	8 52	2 7	10 ♒ 26	0 33	1 s 36	1 s 34	1 s 37	2 s 50
7	3 23	8 36	2 3	10 7	0 33	1 37	1 28	1 10	3 36
13	3 38	8 21	1 59	9 48	0 33	1 38	1 21	0 44	4 1
19	3 52	8 7	1 57	9 29	0 32	1 39	1 13	0 18	3 42
25	4 5	7 54	1 57	9 10	0 34	1 39	1 4	0 n 6	2 19

Days	☉'s longitude	☾'s long.	☾'s latitude	♄'s long.	♃'s long.	♂'s long.	♀'s long.	☿'s long.
1	♍ 9 21 16	15 ♌ 2	0 s 16	29 ♑ 41	13 ♈ 21	1 ♊ 37	25 ♋ 8	6 ♎ 9
2	10 19 28	27 5	1 22	29 38	13 16	2 7	26 13	6 54
3	11 17 42	9 ♍ 3	2 23	29 35	13 10	2 36	27 19	7 36
B	12 15 58	20 55	3 17	29 33	13 4	3 5	28 25	8 16
5	13 14 16	2 ♎ 46	4 2	29 30	12 58	3 33	29 31	8 52
6	14 12 36	14 35	4 37	29 27	12 52	4 0	0 ♌ 37	9 22
7	15 10 57	26 27	5 0	29 25	12 46	4 26	1 43	9 47
8	16 9 20	8 ♏ 23	5 11	29 23	12 40	4 53	2 50	10 7
9	17 7 44	20 26	5 7	29 21	12 33	5 19	3 57	10 22
10	18 6 9	2 ♐ 40	4 50	29 19	12 27	5 45	5 4	10 32
B	19 4 36	15 9	4 19	29 17	12 20	6 11	6 11	10 ℞ 36
12	20 3 5	27 57	3 35	29 15	12 13	6 36	7 18	10 33
13	21 1 35	11 ♑ 9	2 37	29 13	12 6	7 0	8 25	10 24
14	22 0 7	24 46	1 30	29 11	11 59	7 24	9 33	10 8
15	22 58 40	8 ♒ 51	0 14	29 9	11 52	7 48	10 41	9 45
16	23 57 15	23 23	1 n 4	29 7	11 45	8 11	11 49	9 15
17	24 55 52	8 ♓ 18	2 20	29 6	11 37	8 34	12 57	8 39
B	25 54 31	23 30	3 27	29 4	11 30	8 56	14 5	7 55
19	26 53 12	8 ♈ 47	4 20	29 3	11 22	9 18	15 13	7 5
20	27 51 54	24 1	4 54	29 2	11 15	9 40	16 22	6 10
21	28 50 39	8 ♉ 59	5 8	29 1	11 7	10 1	17 31	5 10
22	29 49 27	23 34	5 0	29 0	11 0	10 22	18 40	4 5
23	♎ 0 48 17	7 ♊ 42	4 35	28 59	10 52	10 42	19 49	2 59
24	1 47 9	21 21	3 54	28 58	10 44	11 1	20 58	1 52
B	2 46 3	4 ♋ 34	3 3	28 57	10 36	11 19	22 7	0 45
26	3 44 59	17 22	2 3	28 56	10 28	11 37	23 17	29 ♍ 42
27	4 43 58	29 51	0 59	28 56	10 20	11 54	24 27	28 44
28	5 42 59	12 ♌ 4	0 s 7	28 55	10 12	12 11	25 37	27 5[illegible]
29	6 42 2	24 6	1 11	28 55	10 4	12 27	26 47	27 6
30	7 41 8	6 ♍ 1	2 11	28 54	9 56	12 43	27 57	26 29

Days	♃ riſes	♂ riſes	♀ riſes	☿ ſets	♄'s declin.	♃'s declin.	♂'s declin.	♀'s declin.	☿'s declin.
1	7 a 43	9 a 27	1 m 13	7 a 12	20 s 46	3 n 48	18 n 59	19 n 32	5 s 3
7	7 21	9 13	1 24	6 52	20 50	3 34	19 36	18 40	7 11
13	6 58	8 59	1 38	6 29	20 53	3 17	20 11	17 29	7 49
19	6 35	8 43	1 53	6 3	20 55	2 59	20 40	16 0	6 13
25	6 12	8 27	2 11	5 42	20 56	2 41	21 6	14 15	2 25

October hath XXXI Days.

The Lunations.

New Moon the 3d day, at 1 minute paſt 10 morning,
Firſt quarter the 11th day, at 52 minutes paſt 8 morning,
Full Moon the 17th day, at 52 minutes paſt 12 at night,
Laſt quarter the 24th day, at 52 minutes paſt 10 at night.

M D	Sundays & other remark. days	☉ riſes	☉ ſets	☉'s declin.	☾'s declin.	☽ riſes & ſets	☾ South	Clock aft. ☉
1	Remigius	6 14	5 46	3 s 27	1 n 58	4 m 9	10 m 36	10 32
B	19 S. aft. Trin.	6 16	5 44	3 50	3 s 24	5 18	11 16	10 51
3		6 18	5 42	4 13	8 39	☽ ſets	11 56	11 9
4		6 20	5 40	4 36	13 35	5 a 28	0 a 38	11 27
5		6 22	5 38	5 0	18 3	5 45	1 22	11 44
6	Faith	6 24	5 36	5 23	21 50	6 5	2 8	12 1
7		6 26	5 34	5 46	24 42	6 36	2 57	12 18
8		6 28	5 32	6 9	26 28	7 16	3 49	12 34
B	20 S. aft. Trin.	St. Den.	5 31	6 31	26 56	8 11	4 44	12 50
10	Ox & Cam. T. b.	6 31	5 29	6 54	25 59	9 19	5 39	13 6
11		6 33	5 27	7 17	23 37	10 37	6 34	13 20
12		6 35	5 25	7 40	19 52	morn	7 28	13 35
13	Tr. K. Edward	6 37	5 23	8 2	14 56	0 1	8 20	13 49
14		6 39	5 21	8 24	9 2	1 29	9 11	14 2
15		6 41	5 19	8 47	2 30	2 56	10 3	14 15
B	21 S. aft. Trin.	6 43	5 17	9 9	4 n 18	4 26	10 56	14 28
17	Etheldred	6 45	5 15	9 31	10 55	5 57	11 51	14 40
18	St. Luke	6 47	5 13	9 53	16 54	☽ riſes	morn	14 51
19		6 49	5 11	10 14	21 45	5 a 23	0 48	15 1
20		6 51	5 9	10 36	25 6	6 4	1 48	15 11
21		6 53	5 7	10 57	26 42	6 54	2 50	15 21
22		6 55	5 5	11 18	26 35	8 0	3 51	15 29
B	22 S. aft. Trin.	6 56	5 4	11 39	24 54	9 11	4 49	15 37
24		6 58	5 2	12 0	21 57	10 26	5 43	15 44
25	K. G. III. Acceſ.	Criſpin	5 0	12 21	18 3	11 44	6 33	15 51
26	K. Geo. III. Pro.	7 2	4 58	12 42	13 29	morn	7 18	15 56
27		7 4	4 56	13 2	8 29	0 54	8 0	16 1
28	St. Simon & Jude	7 6	4 54	13 22	3 14	2 5	8 41	16 5
29		7 8	4 52	13 42	2 s 6	3 12	9 21	16 9
B	23 S. aft. Trin.	7 9	4 51	14 2	7 21	4 22	10 0	16 11
31		7 11	4 40	14 21	12 21	5 37	10 41	16 13

Days	Day decreaſ.	Length of day	Helioc. long. ♄	Helioc. long. ♃	Helioc. long. ♂	Helioc. long. ⊖	Helioc. long. ♀	Helioc. long. ☿	♄ ſets
1	5 2	11 3	4 ♒ 18	9 ♈ 34	4 ♉ 20	8 ♈ 40	26 ♊ 52	9 ♉ 41	11 a 41
7	5 26	11 8	4 29	10 7	7 51	14 36	6 ♋ 34	16 ♊ 48	11 19
13	5 48	10 46	4 40	10 40	11 20	20 33	16 17	22 ♋ 49	10 57
19	6 12	10 22	4 51	11 13	14 43	26 30	26 2	26 ♌ 28	10 35
25	6 34	10 0	5 2	11 46	18 4	2 ♉ 29	5 ♌ 46	23 ♍ 33	10 14

Days	Day lig. begins	Day lig. ends	Durat. twilig.	☾'s node in	♄'s latitude	♃'s latitude	♂'s latitude	♀'s latitude	☿'s latitude
1	4 18	7 41	1 55	8 ♒ 51	0 s 34	1 s 39	0 s 54	0 n 28	0 s 19
7	4 31	7 28	1 54	8 32	0 34	1 39	0 42	0 48	1 n 14
13	4 43	7 16	1 53	8 12	0 34	1 39	0 30	1 5	1 57
19	4 55	7 4	1 53	7 53	0 34	1 38	0 15	1 19	1 59
25	5 6	6 53	1 53	7 34	0 34	1 37	0 0	1 30	1 37

Days	☉'s longitude	☽'s long.	☾'s latitude	♄'s long.	♃'s long.	♂'s long.	♀'s long.	☿'s long.
1	♎ 8 40 16	17 ♍ 52	3 s 5	28 ♑ 54	9 ♈ 47	12 ♊ 58	29 ♌ 7	26 ♍ 2
B	9 39 27	29 42	3 50	28 54	9 39	13 13	0 ♍ 17	25 45
3	10 38 40	11 ♎ 32	4 26	28 D 54	9 31	13 27	1 27	25 D 39
4	11 37 55	23 25	4 50	28 54	9 23	13 40	2 38	25 43
5	12 37 12	5 ♏ 21	5 2	28 54	9 15	13 52	3 49	25 57
6	13 36 30	17 23	5 0	28 55	9 7	14 3	5 0	26 22
7	14 35 50	29 31	4 45	28 55	8 59	14 14	6 11	26 59
8	15 35 12	11 ♐ 49	4 17	28 56	8 51	14 24	7 22	27 43
B	16 34 36	24 19	3 35	28 56	8 43	14 33	8 33	28 35
10	17 34 2	7 ♑ 4	2 43	28 57	8 35	14 41	9 45	29 34
11	18 33 30	20 9	1 40	28 58	8 27	14 49	10 56	0 ♎ 40
12	19 32 59	3 ♒ 36	0 31	28 59	8 20	14 56	12 8	1 52
13	20 32 30	17 29	0 n 43	29 0	8 12	15 3	13 20	3 10
14	21 32 3	1 ♓ 48	1 56	29 1	8 4	15 8	14 31	4 22
15	22 31 37	16 32	3 3	29 2	7 57	15 12	15 43	5 58
B	23 31 13	1 ♈ 36	4 0	29 4	7 49	15 16	16 55	7 26
17	24 30 51	16 51	4 39	29 5	7 42	15 19	18 7	9 56
18	25 30 31	2 ♉ 8	4 59	29 6	7 34	15 21	19 19	10 31
19	26 30 13	17 14	4 58	29 8	7 27	15 23	20 31	12 6
20	27 29 57	1 ♊ 59	4 36	29 10	7 20	15 24	21 43	13 42
21	28 29 44	16 17	3 58	29 11	7 13	15 ℞ 25	22 56	15 20
22	♏ 29 29 33	0 ♋ 6	3 7	29 13	7 6	15 24	24 8	16 59
B	0 29 24	13 24	2 7	29 15	6 59	15 21	25 21	18 38
24	1 29 17	26 15	1 3	29 17	6 52	15 17	26 34	20 18
25	2 29 12	8 ♌ 44	0 s 3	29 19	6 46	15 13	27 47	21 58
26	3 29 10	20 55	1 7	29 21	6 40	15 9	29 0	23 38
27	4 29 10	2 ♍ 55	2 7	29 24	6 34	15 4	0 ♎ 13	25 18
28	5 29 12	14 47	3 0	29 26	6 28	14 58	1 26	26 58
29	6 29 17	26 36	3 46	29 29	6 22	14 50	2 39	28 38
B	7 29 24	8 ♎ 26	4 22	29 32	6 16	14 41	3 52	0 ♏ 18
31	8 29 33	20 19	4 46	29 34	6 10	14 31	5 5	1 56

Days	♃ riſes	♂ riſes	♀ riſes	☿ riſes	♄'s declin.	♃'s declin.	♂'s declin.	♀'s declin.	☿'s declin.
1	5 a 49	8 a 10	2 m 27	5 m 1	20 s 57	2 n 22	21 n 30	12 n 14	1 n 17
7	ſets	7 51	2 44	4 41	20 57	2 3	21 50	9 59	2 20
13	5 m 31	7 29	3 2	4 53	20 56	1 45	22 8	7 33	0 32
19	5 5	7 6	3 20	5 24	20 55	1 28	22 25	4 58	2 s 57
25	4 38	6 41	3 38	5 56	20 52	1 12	22 39	2 16	7 4

November hath XXX Days.

The LUNATIONS.

New Moon the 2d day, at 39 minutes paſt 3 morning,
Firſt quarter the 9th day, at 49 minutes paſt 7 evening,
Full Moon the 16th day, at 50 minutes paſt 10 morning,
Laſt quarter the 23d day, at 12 minutes paſt 5 afternoon.

M D	Sundays & other remark. days	☉ riſes	☉ ſets	☉'s declin.	☾'s declin.	☽ riſes & ſets	☾ South	Clock aft. ☉
1	**All Saints**	7 13	4 47	14 s 40	16 s 56	6 m41	11 m24	16 14
2	Pr. Edw. born	All Soul	4 45	14 59	20 53	☽ ſets	0 a 9	16 14
3	Prs. Sophia born	7 17	4 43	15 18	23 59	4 a 43	0 58	16 13
4		7 18	4 42	15 37	25 59	5 20	1 49	16 12
5	Powder Plot	7 20	4 40	15 55	26 44	6 11	2 43	16 10
B	24 S. aft. Trin.	Leonard	4 38	16 13	26 6	7 14	3 38	16 6
7	D. Cumb. born	Mich. Term beg.		16 31	24 4	8 29	4 32	16 3
8	Prs. Aug. Sop. b.	7 25	4 35	16 48	20 43	9 48	5 24	15 58
9	Ld. Mayor's day	7 27	4 33	17 5	16 13	11 11	6 15	15 52
10		7 29	4 31	17 22	10 47	morn	7 5	15 46
11	St. Martin	7 30	4 30	17 38	4 41	0 35	7 53	15 39
12		7 32	4 28	17 55	1 n 47	1 59	8 43	15 30
B	**25 S. aft. Trin.**	Britius	4 27	18 11	8 17	3 25	9 35	15 22
14		7 35	4 25	18 26	14 24	4 52	10 30	15 12
15	Machutus	7 37	4 23	18 42	19 41	6 25	11 28	15 1
16		7 38	4 22	18 56	23 42	☽ riſes	morn	14 50
17	Hugh	7 40	4 20	19 11	26 5	4 a 38	0 29	14 38
18		7 41	4 19	19 25	26 39	5 37	1 31	14 25
19		7 42	4 18	19 39	25 31	6 49	2 32	14 11
B	**26 S. aft. Trin.**	Edm. K. & Mart.		19 53	22 56	8 9	3 29	13 56
21		7 45	4 15	20 6	19 13	9 23	4 22	13 41
22	Old Mart. Day	Cecilia	4 13	20 19	14 45	10 38	5 10	13 24
23	St. Clement	7 48	4 12	20 31	9 47	11 48	5 54	13 7
24		7 49	4 11	20 43	4 33	morn	6 35	12 49
25	**D. Glouc. born**	7 51	4 9	20 55	0 s 46	0 58	7 15	12 30
26		7 52	4 8	21 6	6 2	2 7	7 54	12 11
B	**Advent Sunday**	7 53	4 7	21 17	11 5	3 15	8 34	11 51
28	**Mic. Term ends**	7 54	4 6	21 28	15 46	4 27	9 16	11 30
29		7 55	4 5	21 38	19 53	5 37	10 0	11 8
30	**St. Andrew**	7 56	4 4	21 47	23 13	6 48	10 47	10 46

Days	Day decreaſ.	Length of day	Helioc. long. ♄	Helioc. long. ♃	Helioc. long. ♂	Helioc. long. ⊖	Helioc. long. ♀	Helioc. long. ☿	♄ ſets
1	7 0	9 34	5 ♒ 15	12 ♈ 24	21 ♉ 56	9 ♉ 30	17 ♌ 10	19 ♎ 31	9 a 48
7	7 22	9 12	5 26	12 57	25 12	15 31	26 56	8 ♏ 35	9 26
13	7 40	8 54	5 37	13 30	28 27	21 34	6 ♍ 41	25 58	9 4
19	7 58	8 36	5 48	14 3	1 ♊ 39	27 37	16 26	12 ♐ 33	8 41
25	8 16	8 18	5 59	14 36	4 50	3 ♊ 42	26 10	29 8	8 19

November.

Days	Daylig. begins	Day lig. ends	D[illegible]t. [illegible]	☾'s node in	♄'s latitude	♃'s latitude	♂'s latitude	♀'s latitude	☿'s latitude
1	5 17	6 42	1 5[illegible]	7♒12	0 s 34	1 s 36	0 n 20	1 n 39	0 n 56
7	5 25	6 35	1 5[illegible]	6 53	0 35	1 34	0 38	1 44	0 16
13	5 33	6 27	2 [illegible]	6 34	0 35	1 33	0 57	1 46	0 s 24
19	5 41	6 19	2 1	6 15	0 35	1 31	1 15	1 45	1 1
25	5 48	6 12	[illegible] 3	5 56	0 35	1 29	1 32	1 41	1 34

Days	☉'s longitude.	☽'s long.	☾'s latitude	♄'s long.	♃'s long.	♂'s long.	♀'s long.	☿'s long.
1	♏ 9 29 43	2♏17	4 s 58	29♑37	6♈ 4	14♊21	6♎19	3♏35
2	10 29 56	14 22	4 57	29 40	5 59	14 11	7 32	5 13
3	11 30 11	26 34	4 42	29 43	5 54	14 0	8 46	6 52
4	12 30 27	8♐54	4 14	29 46	5 49	13 47	9 59	8 30
5	13 30 45	21 23	3 33	29 49	5 44	13 33	11 13	10 8
B	14 31 5	4♑3	2 42	29 53	5 39	13 18	12 26	11 45
7	15 31 26	16 55	1 41	29 56	5 34	13 2	13 40	13 22
8	16 31 48	0♒2	0 33	0♒0	5 30	12 46	14 54	14 59
9	17 32 11	13 26	0 n 38	0 4	5 26	12 30	16 8	16 35
10	18 32 36	27 10	1 48	0 7	5 22	12 13	17 22	18 11
11	19 33 2	11♓14	2 54	0 11	5 18	11 55	18 36	19 47
12	20 33 30	25 40	3 50	0 15	5 1[illegible]	11 36	19 50	21 23
B	21 33 59	10♈24	4 32	0 19	5 11	11 17	21 4	22 58
14	22 34 29	25 20	4 56	0 23	5 8	10 57	22 18	24 33
15	23 35 1	10♉21	5 1	0 27	5 5	10 37	23 32	26 8
16	24 35 34	25 16	4 44	0 31	5 2	10 16	24 46	27 42
17	25 36 9	9♊57	4 9	0 35	5 1	9 55	26 0	29 16
18	26 36 45	24 16	3 19	0 39	4 58	9 33	27 14	0♐50
19	27 37 23	8♋8	2 18	0 44	4 55	9 11	28 29	2 24
B	28 38 2	21 31	1 12	0 48	4 53	8 49	29 43	3 58
21	29 38 43	4♌28	0 3	0 52	4 51	8 26	0♏57	5 31
22	♐ 0 39 26	17 2	1 s 3	0 57	4 50	8 3	2 12	7 4
23	1 40 11	29 16	2 5	1 2	4 49	7 41	3 26	8 38
24	2 40 57	11♍18	3 1	1 7	4 48	7 18	4 40	10 11
25	3 41 45	23 11	3 47	1 12	4 47	6 55	5 55	11 44
26	4 42 35	5♎1	4 24	1 17	4 46	6 32	7 9	13 17
B	5 43 26	16 52	4 50	1 22	4 45	6 9	8 24	14 50
28	6 44 18	28 49	5 3	1 27	4 44	5 46	9 39	16 23
29	7 45 12	10♏53	5 2	1 32	4D44	5 23	10 53	17 56
30	8 46 7	23 8	4 48	1 37	4 44	5 1	12 8	19 28

Days	♃ ſets	♂ riſes	♀ riſes	☿ ſets	♄'s declin.	♃'s decl n.	♂'s declin.	♀'s declin.	☿'s declin.
1	4 m 7	6 a 8	4 m 0	4 a 42	20 s 49	0 n 57	22 n 53	1 s 1	11 s 51
7	3 40	5 37	4 17	4 34	20 45	0 47	23 1	3 48	15 36
13	3 14	5 5	4 34	4 27	20 40	0 39	23 6	6 35	18 5
19	2 47	4 31	4 51	4 23	20 35	0 34	23 5	9 19	21
25	2 22	3 56	5 8	4 14	20 29	0 32	23 0	1 56	22

December hath XXXI Days. White.

The Lunations.

New Moon the 1ſt day, at 48 minutes paſt 8 at night,
Firſt quarter the 9th day, at 52 minutes paſt 4 morning,
Full Moon the 15th day, at 36 minutes paſt 10 at night,
Laſt quarter the 23d day, at 7 minutes paſt 2 afternoon,
New Moon the 31ſt day, at 39 minutes paſt noon.

M D	Sundays & other remark. days	☉ riſes		☉ ſets		☉'s declin.		☾'s declin.		☽ riſes & ſets		☾ South		Clock aft. ☉	
1		7	57	4	3	21 s	57	25 s	32	☽ ſets		11 m	38	10	23
2		7	58	4	2	22	6	26	38	4 a	0	0 a	32	9	59
3		7	59	4	1	22	14	26	15	4	57	1	27	9	35
B	2 S. in Advent	8	0	4	0	22	22	21	28	6	12	2	21	9	10
5		8	1	3	59	22	29	21	21	7	31	3	14	8	45
6	Nicholas	8	2	3	58	22	37	17	4	8	53	4	5	8	19
7		8	3	3	57	22	43	11	50	10	14	4	54	7	53
8	Conc. B. V. M.	8	3	3	57	22	49	5	59	11	36	5	42	7	26
9		8	4	3	56	22	55	0 n	15	morn		6	29	6	59
10		8	5	3	55	23	0	6	34	0	58	7	17	6	31
B	3 S. in Advent	8	5	3	55	23	5	12	36	2	22	8	8	6	3
12		8	6	3	54	23	10	18	0	3	48	9	3	5	35
13	Lucy	8	6	3	54	23	14	22	21	5	16	10	1	5	6
14	Ember Week	8	7	3	53	23	17	25	19	6	41	11	1	4	37
15		8	7	3	53	23	20	26	36	☽ riſes		morn		4	8
16	Camb. T. ends	8	7	3	53	23	23	26	7	4 a	14	0	2	3	39
17	Oxf. Term ends	8	8	3	52	23	25	24	2	5	30	1	2	3	9
B	4 S. in Advent	8	8	3	52	23	26	20	39	6	49	1	58	2	40
19		8	8	3	52	23	27	16	20	8	6	2	49	2	10
20		8	8	3	52	23	28	11	25	9	20	3	35	1	40
21	St. Thomas	Shor. d.		3	52	23	28	6	10	10	31	4	18	1	10
22		8	8	3	52	23	28	0	47	11	39	4	59	0	40
23		8	8	3	52	23	27	4 s	33	morn		5	38	0	10
24		8	8	3	52	23	26	9	41	0	47	6	17	0 be.	20
B	Chriſtmas day	8	7	3	53	23	24	14	28	1	57	6	58	0	50
26	St. Stephen	8	7	3	53	23	22	18	45	3	7	7	41	1	20
27	St. John	8	7	3	53	23	19	22	20	4	18	8	27	1	50
28	Innocents	8	6	3	54	23	16	24	58	5	30	9	16	2	19
29		8	6	3	54	23	13	26	26	6	36	10	8	2	49
30		8	6	3	54	23	8	26	31	7	34	11	3	3	18
31	Silveſter	8	5	3	55	23	4	25	7	☽ ſets		11	59	3	47

Days	Day decreaſ.		Length of day		Helioc. long. ♄	Helioc. long. ♃	Helioc. long. ♂	Helioc. long. ⊖	Helioc. long. ♀	Helioc. long. ☿	♄ ſets	
1	8	28	8	6	6 ♒ 10	15 ♈ 9	7 ♊ 58	9 ♊ 47	5 ♎ 53	16 ♑ 28	7 a	56
7	8	40	7	54	6 21	15 42	11 5	15 53	15 34	5 ♒ 22	7	33
13	8	46	7	48	6 32	16 15	14 9	21 59	25 14	26 54	7	9
19	8	50	7	44	6 43	16 48	17 12	28 6	4 ♏ 52	22 ♓ 17	6	46
25	0 inc.	2	7	46	6 54	17 21	20 13	4 ♋ 13	14 29	22 ♈ 43	6	24

December.

Days	Day lig. begins	Day lig. ends	Durat. twilig.	☾'s node in	♄'s latitude	♃'s latitude	♂'s latitude	♀'s latitude	☿'s latitude
1	5 54	6 6	2 3	5♒37	0 s 35	1 s 27	1 n 47	1 n 34	2 s 0
7	5 57	6 3	2 6	5 18	0 35	1 25	2 0	1 25	2 19
13	5 59	6 1	2 7	4 59	0 36	1 24	2 10	1 14	2 15
19	6 1	5 59	2 7	4 40	0 36	1 22	2 17	1 2	1 53
25	6 1	5 59	2 6	4 21	0 36	1 20	2 22	0 48	[illegible] 58

Days	☉'s longitude	☾'s long.	☾'s latitude	♄'s long.	♃'s long.	♂'s long.	♀'s long.	☿'s long.
1	♐ 9 47 4	5♐33	4 s 21	1♒42	4♈45	4♊39	13♏23	21♐0
2	10 48 2	18 10	3 40	1 47	4 45	4 17	14 37	22 33
3	11 49 0	0♑58	2 47	1 52	4 46	3 56	15 52	24 5
B	12 49 59	13 56	1 45	1 58	4 47	3 35	17 7	25 37
5	13 50 59	27 6	0 36	2 3	4 48	3 14	18 22	27 9
6	14 52 0	10♒28	0 n 36	2 9	4 50	2 54	19 37	28 41
7	15 53 2	24 1	1 47	2 15	4 52	2 34	20 52	0♑12
8	16 54 4	7♓48	2 53	2 21	4 54	2 15	22 7	1 42
9	17 55 6	21 47	3 50	2 26	4 56	1 56	23 22	3 13
10	18 56 9	5♈59	4 34	2 32	4 58	1 38	24 37	4 43
B	19 57 13	20 22	5 1	2 38	5 0	1 21	25 52	6 12
12	20 58 17	4♉52	5 9	2 44	5 2	1 5	27 7	7 41
13	21 59 21	19 25	4 57	2 50	5 5	0 49	28 22	9 9
14	23 0 25	3♊55	4 27	2 56	5 8	0 34	29 37	10 35
15	24 1 30	18 14	3 40	3 2	5 12	0 19	0♐52	12 0
16	25 2 36	2♋17	2 40	3 8	5 15	0 5	2 7	13 25
17	26 3 42	16 0	1 32	3 14	5 19	29♉52	3 22	14 48
B	27 4 49	29 20	0 21	3 20	5 22	29 40	4 37	16 8
19	28 5 56	12♌18	0 s 49	3 27	5 26	29 29	5 52	17 24
20	29 7 4	24 54	1 56	3 33	5 30	29 18	7 7	18 38
21	♑ 0 8 13	7♍12	2 55	3 39	5 35	29 8	8 22	19 49
22	1 9 22	19 17	3 46	3 46	5 39	28 59	9 37	20 55
23	2 10 32	1♎13	4 26	3 52	5 44	28 51	10 52	21 56
24	3 11 43	13 4	4 54	3 58	5 49	28 44	12 7	22 52
B	4 12 54	24 57	5 10	4 5	5 54	28 37	13 23	23 43
26	5 14 6	6♏56	5 12	4 12	5 59	28 31	14 38	24 27
27	6 15 18	19 4	5 1	4 18	6 5	28 26	15 53	25 2
28	7 16 30	1♐25	4 36	4 25	6 11	28 22	17 9	25 28
29	8 17 43	14 0	3 57	4 31	6 17	28 19	18 24	25 44
30	9 18 56	26 52	3 5	4 38	6 23	28 17	19 39	25℞50
31	10 20 9	10♑0	2 3	4 45	6 29	28 16	20 55	25 44

Days	♃ ſets	♂ ſets	♀ riſes	☿ ſets	♄'s declin.	♃'s declin.	♂'s declin.	♀'s declin.	☿'s declin.
1	1 m 56	7 m 52	5 m 25	4 a 26	20 s 22	0 n 34	22 n 50	14 s 23	25 s 9
7	1 31	7 16	5 41	4 36	20 15	0 38	22 39	16 37	25 44
13	1 6	6 40	5 57	4 52	20 7	0 44	22 27	18 36	25 24
19	0 41	6 7	6 12	5 11	19 59	0 54	22 18	20 18	24 12
25	0 17	5 37	6 24	5 25	19 50	1 7	22 12	21 39	22 20

Time of High-Water at LONDON in the morning and afternoon of every day in the year.

Mo. Days	JANUARY				FEBRUARY				MARCH				APRIL				Mo. Days
	morn.		aftern.		morn.		aftern.		morn.		aftern.		morn.		aftern.		
	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	
1	5	19	5	36	5	45	6	5	4	43	4	59	5	59	6	27	1
2	5	54	6	13	6	30	6	53	5	18	5	40	6	59	7	31	2
3	6	34	6	56	7	22	7	54	6	5	6	31	8	6	8	41	3
4	7	18	7	43	8	30	9	9	7	3	7	35	9	20	9	55	4
5	8	10	8	42	9	48	10	27	8	13	8	51	10	31	11	5	5
6	9	15	9	48	11	6	11	44	9	30	10	9	11	38	0	8	6
7	10	23	11	0			0	22	10	48	11	25			0	38	7
8	11	36			0	52	1	26			0	2	1	6	1	33	8
9	0	m11	0	46	1	52	2	24	0	33	1	2	2	1	2	28	9
10	1	17	1	52	2	43	3	5	1	31	1	58	2	50	3	9	10
11	2	19	2	49	3	12	3	40	2	23	2	46	3	28	3	47	11
12	3	6	3	29	3	55	4	11	3	5	3	22	4	6	4	25	12
13	3	45	4	1	4	36	4	51	3	39	3	56	4	47	5	10	13
14	4	20	4	39	5	12	5	32	4	14	4	35	5	35	6	1	14
15	4	57	5	15	5	59	6	24	4	55	5	18	6	29	6	58	15
16	5	39	5	59	6	56	7	24	5	43	6	10	7	26	7	54	16
17	6	27	6	50	7	59	8	33	6	40	7	13	8	23	8	53	17
18	7	23	7	48	9	9	9	45	7	45	8	17	9	23	9	53	18
19	8	23	8	55	10	19	10	54	8	51	9	25	10	21	10	46	19
20	9	33	10	8	11	24	11	57	9	57	10	29	11	11	11	35	20
21	10	44	11	19			0	25	10	58	11	26	11	59			21
22	11	53			0	49	1	12	11	52			0	23	0	45	22
23	0	24	0	53	1	34	1	56	0	16	0	40	1	7	1	29	23
24	1	20	1	47	2	16	2	34	1	1	1	21	1	51	2	14	24
25	2	10	2	33	2	51	3	5	1	41	2	1	2	37	2	55	25
26	2	50	3	6	3	18	3	31	2	22	2	40	3	12	3	29	26
27	3	19	3	31	3	44	3	57	2	55	3	8	3	45	4	3	27
28	3	44	3	56	4	9	4	25	3	21	3	37	4	21	4	41	28
29	4	9	4	24					3	54	4	11	5	4	5	28	29
30	4	39	4	54					4	29	4	48	5	55	6	22	30
31	5	9							5	9	5	32					31

This Table may ſerve the following Places, by adding

	h	m
For Tinmouth Haven, Hartle-pool, *and* Amſterdam	0	30
Breſt — — — — — — — —	1	0
Scilly — — — — — — — —	1	45
Mount's Bay — — — — — — —	1	55
Bridlington Pier *and* Humber — — —	2	0

Time of High-Water at LONDON in the morning and afternoon of every day in the year.

Mo. Days	MAY morn h	m	aftern. h	m	JUNE morn h	m	aftern. h	m	JULY morn. h	m	aftern. h	m	AUGUST morn. h	m	aftern. h	m	Mo. Days
1	6	52	7	22	8	25	8	57	8	53	9	29	11	2	11	36	1
2	7	53	8	25	9	20	10	2	10	5	10	41			0	10	2
3	9	0	9	33	10	35	11	10	11	17	11	52	0	40	1	7	3
4	10	7	10	39	11	44	0	15			0	27	1	33	1	57	4
5	11	11	11	43			0	47	0	58	1	28	2	20	2	41	5
6			0	14	1	17	1	48	1	56	2	24	2	58	3	12	6
7	0	45	1	11	2	16	2	44	2	45	3	6	3	26	3	38	7
8	1	40	2	8	3	4	3	25	3	21	3	36	3	50	4	2	8
9	2	34	2	58	3	42	3	59	3	50	4	4	4	16	4	31	9
10	3	18	3	38	4	17	4	35	4	19	4	35	4	47	5	3	10
11	3	56	4	14	4	52	5	10	4	50	5	6	5	19	5	37	11
12	4	36	4	58	5	28	5	46	5	21	5	37	5	58	6	23	12
13	5	19	5	40	6	6	6	27	5	56	6	16	6	47	7	15	13
14	6	4	6	29	6	48	7	9	6	38	7	0	7	47	8	21	14
15	6	5	7	17	7	32	7	54	7	25	7	50	8	56	9	36	15
16	7	42	8	8	8	20	8	47	8	20	8	51	10	12	10	50	16
17	8	33	8	58	9	16	9	45	9	26	10	2	11	24			17
18	9	25	9	52	10	14	10	44	10	37	11	13	0	6	0	37	18
19	10	17	10	43	11	17	11	50	11	49			1	7	1	37	19
20	11	10	11	37			0	20	0	25	0	56	2	5	2	31	20
21			0	4	0	50	1	20	1	28	1	58	2	51	3	11	21
22	0	30	0	56	1	49	2	17	2	27	2	48	3	28	3	44	22
23	1	21	1	47	2	45	3	5	3	9	3	27	4	0	4	19	23
24	2	14	2	37	3	25	3	42	3	44	4	0	4	38	4	58	24
25	2	59	3	19	4	0	4	20	4	16	4	34	5	19	5	44	25
26	3	38	3	56	4	39	4	58	4	55	5	15	6	11	6	41	26
27	4	13	4	35	5	17	5	39	5	35	6	0	7	13	7	48	27
28	4	57	5	19	6	1	6	27	6	25	6	52	8	23	9	0	28
29	5	41	6	6	6	52	7	20	7	21	7	55	9	38	10	13	29
30	6	32	6	58	7	48	8	20	8	32	9	9	10	47	11	20	30
31	7	25	7	55					9	48	10	25	11	51			31

Adding	h	m
For Fowey, Loo *and* Plymouth — — — —	3	10
Dartmouth, Harborough *and* Hull — —	3	30
Torbay *and* Tinmouth — — — — —	3	40
Exmouth, Topſham *and* Lime — — —	3	50
Weymouth — — — — — — — —	4	20
Bridgewater *and* Texel — — — — —	4	40
Portland and Hartflew — — — — —	5	50

Time of High-Water at LONDON in the morning and afternoon of every day in the year.

Mo. Days	SEPTEMBER				OCTOBER				NOVEMBER				DECEMBER				Mo. Days
	morn.		aftern.		morn.		aftern.		morn.		aftern.		morn.		aftern.		
	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	
1	0	19	0	45	0	37	0	59	1	26	1	48	1	37	2	3	1
2	1	8	1	30	1	20	1	40	2	10	2	32	2	27	2	51	2
3	1	52	2	13	2	0	2	20	2	51	3	9	3	11	3	29	3
4	2	31	2	48	2	38	2	55	3	26	3	42	3	47	4	4	4
5	3	3	3	16	3	11	3	25	3	59	4	16	4	22	4	41	5
6	3	29	3	42	3	40	3	54	4	35	4	56	5	1	5	21	6
7	3	54	4	7	4	10	4	28	5	18	5	43	5	43	6	6	7
8	4	23	4	41	4	47	5	7	6	8	6	36	6	30	6	56	8
9	4	58	5	17	5	30	5	55	7	3	7	32	7	23	7	51	9
10	5	39	6	3	6	22	6	52	8	3	8	35	8	21	8	52	10
11	6	30	6	59	7	23	7	56	9	7	9	39	9	25	9	59	11
12	7	31	8	6	8	30	9	5	10	11	10	44	10	34	11	9	12
13	8	42	9	21	9	40	10	15	11	17	11	51	11	45			13
14	9	58	10	35	10	49	11	20	0	23			0	20	0	54	14
15	11	12	11	48	11	52			0	53	1	23	1	26	1	57	15
16	0	18			0	23	0	52	1	52	2	19	2	27	2	52	16
17	0	48	1	17	1	20	1	48	2	45	3	9	3	13	3	31	17
18	1	43	2	10	2	16	2	40	3	31	3	50	3	48	4	6	18
19	2	36	2	56	3	2	3	23	4	8	4	29	4	21	4	37	19
20	3	15	3	33	3	42	4	2	4	52	5	14	4	56	5	13	20
21	3	50	4	9	4	22	4	44	5	37	6	0	5	31	5	48	21
22	4	28	4	50	5	9	5	34	6	22	6	45	6	10	6	30	22
23	5	14	5	40	6	0	6	27	7	9	7	33	6	51	7	13	23
24	6	8	6	39	6	56	7	25	7	57	8	23	7	35	8	0	24
25	7	11	7	44	7	54	8	23	8	48	9	14	8	26	8	53	25
26	8	18	8	51	8	51	9	20	9	41	10	7	9	22	9	53	26
27	9	25	9	57	9	49	10	16	10	33	11	0	10	24	10	55	27
28	10	28	10	57	10	41	11	7	11	27	11	53	11	27	11	57	28
29	11	25	11	51	11	33	11	57			0	20			0	28	29
30			0	15			0	20	0	46	1	11	0	58	1	27	30
31					0	42	1	4					1	56	2	24	31

Subtracting	h	m
For Leigh, Maes, *and* Gouries Gut	0	5
Graveſend Rocheſter, *and* Rammekins	1	20
Booy of the Nore *and* Fluſhing	1	30
Portſmouth, Oſtend, Shoe-Becon, *and* Red-Sand	2	0
Harwich, Dover, Spithead, *and* Calais	3	0
Gunfleet, Haſtings, Shoreham, Orfordneſs, *and* Diep	4	0
Yarmouth Pier *and* Needle	4	40
St. Helen's *and* Havre-de-Grace	5	30

IN the courſe of this year there will happen no more than two eclipſes, and thoſe both of the Sun, and both inviſible: which is a very uncommon and remarkable circumſtance.

They happen as follows:

I. On February the 9th, the ☉ is eclipſed, inviſibly. The ☌ is at 0h. 25m. ½ in 10 ſin. 21° 16′. The ☾'s latitude being 0′ 28″ north. The ☉ will be centrally eclipſed on the meridian at 0h. 27m. in longitude 6° 47′ weſt, latitude 13° 57′ ſouth.

II. Auguſt the 4th, the ☉ is eclipſed, inviſibly. The ☌ is at 13h. 31m. ½ in 4 ſin. 12° 55′. The ☾'s latitude being 0° 4½′ ſouth. The ☉ will be centrally eclipſed on the meridian at 13h. 34m. ¼, in longitude 156° 26¾′ eaſt, and latitude 12° 1′ north.

Speculum Phænomenorum

JANUARY

8	☌ ♂ ☾ 2h.
10	☌ ♄ ☾ 20h.
11	☌ ☿ ☾ 20h.
11	☿ in ☊
13	☌ ♀ ☾ 5h.
13	☌ ♃ ☾ 16h.
13	☾ in perigeo
15	☌ ☉ ♄ 13h.
16	☿ ſtationary
16	☿ in perihelio
19	☉ in ♒ 1h. 22m.
24	☌ ☉ ☿ 0h.
26	☾ in apogeo

FEBRUARY

5	☿ ſtationary
6	☌ ♂ ☾ 0h.
7	☌ ☿ ☾ 8h.
7	☌ ♄ ☾ 13h.
9	☉ eclipſ, inviſible
9	☾ in perigeo
10	☌ ♃ ☾ 13h.
10	♀ in ☊
12	☌ ♀ ☾ 2h.
17	☉ in ♓ 16h. 9m.
19	☿ elong. max. a ☉
22	☾ in apogeo
28	☿ in aphelio

MARCH

1	☿ in ☋
6	☌ ♂ ☾ 21h.
7	☌ ♄ ☾ 5h.
8	☌ ☿ ☾ 21h.
8	☾ in perigeo
10	☌ ♃ ☾ 10h.
10	☌ ☉ ♃ 12h.
13	☌ ♀ ☾ 16h.
13	♀ in perihelio
19	☉ in ♈ 16h. 32m.
20	♀ elong. max. a ☉.
21	☾ in apogeo

APRIL

3	☌ ☉ ☿ 15h.
3	☌ ♄ ☾ 17h.
4	☌ ♂ ☾ 17h.
5	☾ in perigeo
7	☌ ♃ ☾ 8h.
9	☌ ☿ ☾ 6h.
9	☿ in ☊
12	☌ ♀ ☾ 1h.
13	☿ in perihelio
18	☾ in apogeo
19	☉ in ♉ 5h. 16m.
24	□ ☉ ♄ 13h.

MAY

1	☌ ♄ ☾ 1h.
2	☾ in perigeo
3	☌ ♂ ☾ 14h.
5	☌ ♃ ☾ 3h.
8	♀ ſtationary
9	☌ ☿ ☾ 12h.
10	☌ ♀ ☾ 5h.
12	☿ ſtationary
14	♄ ſtationary
15	☾ in apogeo
17	☿ in ☋
20	☉ in ♊ 5h. 52m.
23	☌ ☉ ☿ 17h.
27	☿ in aphelio
28	☌ ♄ ☾ 6h.
29	☌ ☉ ♀ 19h.
29	☾ in perigeo

JUNE

1	☌ ♂ ☾ 8h.
1	☌ ♃ ☾ 19h.
2	♀ in ☋
5	☌ ☿ ☾ 7h.
5	☌ ♀ ☾ 17h.
5	☿ ſtationary
11	☾ in apogeo
18	☿ elong. max. a ☉
19	♂ in perihelio
20	♀ ſtationary
20	☉ in ♋ 14h. 37m.
24	☌ ♄ ☾ 11h.
25	☾ in perigeo
29	☌ ♃ ☾ 7h.
30	☌ ♂ ☾ 0h.

ad Annum 1785.

JULY		AUGUST		SEPTEMBER	
2	☌ ♀ ☾ 22h.	3	♃ ſtationary	1	☾ in apogeo
4	☌ ☿ ☾ 20h.	4	☉ eclipſ. inviſible	5	☌ ☿ ☾ 13h.
4	□ ☉ ♃ 12h.	4	☾ in apogeo	11	☿ ſtationary
4	♀ in aphelio	6	☌ ☿ ☾ 6h.	14	☌ ♄ ☾ 8h.
6	☿ in ☊	7	♀ elong. max. a ☉	15	☾ in perigeo
8	☾ in apogeo	13	☿ in ☋	19	☌ ♃ ☾ 4h.
10	☿ in perihelio.	14	□ ☉ ♂ 1h.	22	☉ in ♎ 4h. 18m.
17	☌ ☉ ☿ 7h.	18	☌ ♄ ☾ oh.	23	☌ ♂ ☾ 5h.
21	☌ ♄ ☾ 16h.	19	☾ in perigeo	23	♀ in ☊
22	☉ in ♌ 1h. 31m.	22	☌ ♃ ☾ 22h.	24	☌ ☉ ☿ 1h.
22	☾ in perihelio	22	☉ in ♍ 7h. 52m.	27	♂ in perihelio
24	☍ ☉ ♄ 9h.	23	☿ in aphelio	28	☾ in apogeo.
26	☌ ♃ ☾ 15h.	26	☌ ♂ ☾ 1h.	29	☌ ♀ ☾ 6h.
28	☌ ♂ ☾ 14h.	28	☿ elong. max. a ☉		
31	☌ ♀ ☾ 16h.	30	☌ ♀ ☾ 5h.		

OCTOBER		NOVEMBER.		DECEMBER.	
1	☌ ☿ ☾ 16h.	1	☌ ☿ ☾ 3h.	2	☌ ☿ ☾ 10h.
2	☍ ☉ ♃ oh.	8	☌ ♄ ☾ oh.	5	☌ ♄ ☾ 9h.
2	☿ in ☊	8	☾ in perigeo	6	☾ in perigeo
3	♄ ſtationary	10	☌ ☉ ☿ 14h.	9	☌ ♃ ☾ 22h.
3	☿ ſtationary	10	☿ in ☋	13	☌ ♂ ☾ 18h.
7	☿ in perihelio	12	☌ ♃ ☾ 16h.	18	☾ in apogeo
10	☿ elong. max. a ☉	17	☌ ♂ ☾ oh.	20	☉ in ♑ 20h. 47m.
11	☌ ♄ ☾ 16h.	19	☿ in aphelio	22	☿ elong. max. a ☉
12	☾ in perigeo	21	☉ in ♐ 8h. 25m.	26	□ ☉ ♃ 18h.
16	☌ ♃ ☾ 10h.	21	☾ in apogeo	29	☌ ♀ ☾ 9h.
20	☌ ♂ ☾ 22h.	27	☍ ☉ ♂ 8h.	30	☿ ſtationary
21	□ ☉ ♄ 16h.	29	☌ ♀ ☾ oh.		
21	♂ ſtationary	29	♃ ſtationary		
22	☉ in ♏ 12h. 13m.				
24	♂ in ☊				
25	☾ in apogeo				
25	♀ in perihelio				
29	☌ ♀ ☾ 14h.				

The Eclipſes of Jupiter's

JANUARY				FEBRUARY	MARCH	APRIL			
Emerſions						Immerſions			
1	23	24	49	The Eclipſes of Jupiter's Satellites will not be viſible this month, Jupiter being too near the Sun.	The Eclipſes of Jupiter's Satellites will not be viſible this month, Jupiter being too near the Sun.	11	0	8	39
3	17	52	58			12	18	37	44
5	12	21	5			14	13	6	47
7	6	49	18			16	7	35	49
9	1	17	29			18	2	4	50
10	19	45	45			19	20	33	49
12	14	13	58			21	15	2	46
14	8	42	17			23	9	31	42
16	3	10	36			25	4	0	36
17	21	38	56			26	22	29	28
19	16	7	19			28	16	58	17
21	10	35	44			30	11	27	3
23	5	4	9						
24	23	32	40						
26	18	1	11						
28	12	29	45						
30	6	58	22						

MAY				JUNE				JULY				AUGUST			
Immerſions				Immerſions				Immerſions				Immerſions			
2	5	55	47	1	7	59	20	1	9	56	37	2	6	25	47
4	0	24	30	3	2	27	29	3	4	24	41	4	0	54	28
5	18	53	12	4	20	55	37	4	22	52	46	5	19	23	6
7	13	21	51	6	15	23	44	6	17	20	53	7	13	51	45
9	7	50	26	8	9	51	50	8	11	49	2	9	8	20	24
11	2	19	1	10	4	19	55	10	6	17	12	11	2	49	6
12	20	47	33	11	22	47	59	12	0	45	21	12	21	17	51
14	15	16	3	13	17	16	3	13	19	13	33	14	15	46	40
16	9	44	30	15	11	44	6	15	13	41	49	16	10	15	28
18	4	12	57	17	6	12	9	17	8	10	6	18	4	44	17
19	22	41	21	19	0	40	12	19	2	38	24	19	23	13	10
21	17	9	45	20	19	8	14	20	21	6	43	21	17	42	4
23	11	38	5	22	13	36	16	22	15	35	4	23	12	11	0
25	6	6	23	24	8	4	20	24	10	3	27	25	6	39	58
27	0	34	39	26	2	32	23	26	4	31	52	27	1	8	58
28	19	2	54	27	21	0	28	27	23	0	19	28	19	38	1
30	13	31	7	29	15	28	32	29	17	28	48	30	14	7	3
								31	11	57	19				

firſt Satellite for 1785.

September				October				November				December			
Immerſions				Immerſion				Emerſions				Emerſions			
1	8	36	6	1	10	52	19	2	9	45	12	2	11	49	47
3	3	5	11	Emerſions				4	4	13	59	4	6	17	59
4	21	34	17	3	7	31	36	5	22	42	45	6	0	46	10
6	16	3	25	5	2	0	49	7	17	11	29	7	19	14	20
8	10	32	35	6	20	29	58	9	11	40	10	9	13	42	29
10	5	1	44	8	14	59	7	11	6	8	48	11	8	10	38
11	23	30	55	10	9	28	16	13	0	37	24	13	2	38	45
13	18	0	6	12	3	57	24	14	19	6	0	14	21	6	50
15	12	29	19	13	22	26	30	16	13	34	33	16	15	34	57
17	6	58	30	15	16	55	36	18	8	3	4	18	10	3	3
19	1	27	43	17	11	24	41	20	2	31	32	20	4	31	9
20	19	56	57	19	5	53	45	21	20	59	57	21	22	59	14
22	14	26	12	21	0	22	46	23	15	28	19	23	17	27	19
24	8	55	24	22	18	51	46	25	9	56	40	25	11	55	23
26	3	24	39	24	13	20	45	27	4	24	59	27	6	23	28
27	21	53	53	26	7	49	42	28	22	53	17	29	0	51	35
29	16	23	3	28	2	18	37	30	17	21	33	30	19	19	44
				29	20	47	30								
				31	15	16	21								

The Times of the Eclipſes contained in this Table, are adapted to the Meridian of the Royal Obſervatory at Greenwich, and afford an excellent Method to diſcover the Longitude, or Difference of Meridians, between that and any other Place; which I ſhall illuſtrate by an EXAMPLE:

Suppoſe on the 9th Day of November of this Year, the Time of the Emerſion of Jupiter's firſt Satellite be obſerved (by a Teleſcope) in an unknown Meridian, to happen at 13 h. 28 min. 20 ſec. at night; I find by the Table, that the Time of this Emerſion will happen at the Britiſh Obſervatory, at 11 h. 40 min. 10 ſec. the ſame day: The Difference of the Times is 1 hour 48 min. 20 ſec. which being converted into Degrees and Minutes of the Equator, will make 27 deg. 5 min. the Longitude of the Place of Obſervation, to the Eaſt, becauſe the Time is more than that at the Britiſh Obſervatory.

A Table of the Sun's ſemi-diurnal Arches, or Times

The Sun's Declination North.

Degr.	Lat. 49		Lat. 50		Lat. 51		Lat. 52		Lat. 53		Lat. 54	
	h	m	h	m	h	m	h	m	h	m	h	m
0	6	4	6	4	6	4	6	4	6	4	6	4
1	6	8	6	8	6	8	6	9	6	9	6	9
2	6	12	6	13	6	13	6	14	6	14	6	15
3	6	17	6	18	6	18	6	19	6	19	6	29
4	6	22	6	22	6	22	6	24	6	25	6	25
5	6	26	6	27	6	27	6	29	6	30	6	31
6	6	31	6	32	6	33	6	34	6	36	6	37
7	6	36	6	37	6	38	6	40	6	41	6	43
8	6	41	6	42	6	43	6	45	6	47	6	48
9	6	45	6	47	6	48	6	50	6	52	6	54
10	6	50	6	52	6	54	6	56	6	58	7	0
11	6	55	6	57	6	59	7	1	7	3	7	6
12	7	0	7	2	7	4	7	7	7	9	7	12
13	7	5	7	7	7	10	7	12	7	15	7	18
14	7	10	7	13	7	15	7	18	7	21	7	24
15	7	15	7	18	7	21	7	24	7	27	7	31
16	7	21	7	24	7	27	7	30	7	33	7	37
17	7	26	7	29	7	33	7	36	7	40	7	44
18	7	31	7	35	7	38	7	42	7	46	7	51
19	7	37	7	41	7	45	7	49	7	53	7	58
20	7	43	7	47	7	51	7	55	8	0	8	5
21	7	49	7	53	7	57	8	2	8	7	8	12
22	7	55	7	59	8	4	8	9	8	14	8	20
23	8	1	8	6	8	11	8	16	8	22	8	28
24	8	7	8	12	8	18	8	24	8	30	8	36

By theſe Tables the Times of the Sun's Riſing and Setting may be found, in any Part of the Kingdom of *Great-Britain* or *Ireland*, after the following Manner: Where the Latitude of the Place is known, take the Sun's Declination out of the Table, on the Noon of the Day you deſire to know the Time of his Riſing and Setting; and with it, according as it is either North or South, enter theſe Tables in the Left-of his viſible half Duration above the Horizon.

The Sun's Declination South.

Degr.	Lat. 49		Lat. 50		Lat. 51		Lat. 52		Lat. 53		Lat. 54	
	h	m	h	m	h	m	h	m	h	m	h	m
0	6	4	6	4	6	4	6	4	6	4	6	4
1	5	59	5	59	5	58	5	58	5	58	5	58
2	5	54	5	54	5	53	5	53	5	53	5	53
3	5	49	5	49	5	49	5	48	5	48	5	47
4	5	45	5	44	5	44	5	43	5	42	5	42
5	5	40	5	39	5	39	5	38	5	37	5	36
6	5	35	5	35	5	34	5	33	5	31	5	30
7	5	31	5	30	5	29	5	27	5	26	5	25
8	5	26	5	25	5	23	5	22	5	21	5	19
9	5	21	5	20	5	18	5	17	5	16	5	13
10	5	17	5	15	5	13	5	11	5	10	5	8
11	5	12	5	10	5	8	5	6	5	4	5	2
12	5	7	5	5	5	3	5	0	4	58	4	56
13	5	2	5	0	4	57	4	55	4	52	4	50
14	4	57	4	54	4	52	4	49	4	47	4	44
15	4	52	4	49	4	46	4	44	4	41	4	37
16	4	46	4	45	4	41	4	38	4	34	4	31
17	4	41	4	38	4	35	4	32	4	28	4	23
18	4	36	4	33	4	29	4	26	4	22	4	18
19	4	30	4	27	4	23	4	19	4	15	4	11
20	4	25	4	21	4	17	4	13	4	9	4	4
21	4	19	4	15	4	11	4	6	4	2	3	57
22	4	13	4	9	4	4	4	0	3	55	3	50
23	4	7	4	2	3	58	3	53	3	47	3	42
24	4	1	3	56	3	51	3	46	3	40	3	34

Left-hand Column, under the Word Degrees; then look the Latitude of the Place in the Top of the Table; and in that Column, againſt the Sun's Declination, will be found the Time of his viſible half Duration above the Horizon, or Time of his Setting, correct by Refraction; then ſubtract the Time of his Setting from 12 Hours, the Remainder will be the Time of his Riſing; double the Time of his Setting, the

A Table of the Sun's ſemi-diurnal Arches, or Times

The Sun's Declination North.

Degr	Lat. 55		Lat. 56		Lat. 57		Lat. 58		Lat. 59		Lat. 60	
	h	m	h	m	h	m	h	m	h	m	h	m
0	6	4	6	4	6	4	6	4	6	4	6	4
1	6	9	6	10	6	10	6	10	6	11	6	11
2	6	15	6	16	6	16	6	17	6	17	6	18
3	6	21	6	22	6	22	6	23	6	24	6	25
4	6	27	6	28	6	29	6	30	6	31	6	32
5	6	32	6	34	6	35	6	36	6	38	6	39
6	6	38	6	40	6	41	6	43	6	44	6	46
7	6	44	6	46	6	48	6	49	6	51	6	53
8	6	50	6	52	6	54	6	56	6	58	7	1
9	6	56	6	58	7	1	7	3	7	5	7	8
10	7	2	7	5	7	7	7	10	7	13	7	16
11	7	8	7	10	7	14	7	17	7	20	7	23
12	7	15	7	18	7	21	7	34	7	27	7	31
13	7	21	7	24	7	28	7	31	7	35	7	39
14	7	28	7	31	7	35	7	39	7	43	7	47
15	7	34	7	39	7	42	7	46	7	51	7	56
16	7	41	7	45	7	49	7	54	7	59	8	4
17	7	48	7	52	7	57	8	1	8	7	8	13
18	7	55	8	0	8	5	8	10	8	16	8	22
19	8	2	8	7	8	13	8	19	8	25	8	32
20	8	10	8	15	8	21	8	28	8	35	8	42
21	8	18	8	24	8	30	8	37	8	45	8	53
22	8	26	8	32	8	39	8	47	8	55	9	4
23	8	34	8	41	8	49	8	57	9	6	9	16
24	8	43	8	51	8	59	9	8	9	18	9	29

the Sum will be the Length of the Day; and double the Time of his Riſing, the Sum will be the Length of the Night. But if the Latitude of the Place, and Declination of the Sun, conſiſt of Degrees and Minutes, then a ſmall Allowance muſt be made for the Minutes in both Caſes, which may be done by a Perſon of an ordinary Capacity by a mental Proportion only. Thus, to find the Time of the Sun's Riſing and Setting at of his viſible half Duration above the Horizon.

The Sun's Declination South.

Degr.	Lat. 55		Lat. 56		Lat. 57		Lat. 58		Lat. 59		Lat. 60	
	h	m	h	m	h	m	h	m	h	m	h	m
0	6	4	6	4	6	4	6	4	6	4	6	4
1	5	58	5	58	5	58	5	58	5	57	5	57
2	5	52	5	52	5	52	5	51	5	51	5	50
3	5	47	5	46	5	45	5	45	5	44	5	43
4	5	41	5	40	5	39	5	38	5	37	5	36
5	5	35	5	34	5	33	5	32	5	31	5	29
6	5	29	5	28	5	27	5	25	5	24	5	22
7	5	23	5	22	5	20	5	19	5	17	5	15
8	5	17	5	16	5	14	5	12	5	10	5	8
9	5	12	5	10	5	8	5	5	5	3	5	2
10	5	5	5	3	5	1	4	59	4	56	4	53
11	4	59	4	57	4	54	4	52	4	49	4	46
12	4	53	4	51	4	48	4	45	4	42	4	38
13	4	47	4	44	4	41	4	38	4	34	4	30
14	4	41	4	37	4	34	4	30	4	27	4	23
15	4	34	4	31	4	27	4	23	4	19	4	14
16	4	27	4	24	4	20	4	15	4	11	4	6
17	4	21	4	17	4	12	4	8	4	3	3	57
18	4	14	4	9	4	5	4	0	3	54	3	48
19	4	7	4	2	3	56	3	51	3	45	3	39
20	3	59	3	54	3	49	3	43	3	36	3	29
21	3	52	3	46	3	40	3	34	3	27	3	19
22	3	44	3	38	3	31	3	24	3	17	3	9
23	3	36	3	29	3	23	3	15	3	6	2	57
24	3	27	3	20	3	13	3	5	2	55	2	45

at Aberdeen in Scotland, on the Longeſt Day; the Latitude of that Place is accounted 57 Degr. 7 Min. North, and the Sun's Declination 23 Deg. 28 Min. likewiſe North. By theſe you will find by the Table, that 5 Min. for the Sun's Declination, and 1 Min. for the Latitude of the Place, are both, to be added to 8 Hours 49 Min. the Time belonging to 57 Degr. of Latitude and 23 Degr. of North Declination, and the Sum will be 8 Hours 55 Min. the Time of his apparent Setting at Aberdeen, on the longeſt Day, whoſe Complement to 12 Hours, viz. 3 Hours 5 Min. will be the Time of his Riſing, &c.

A Table of the Sun's Right-Aſcenſion in Time, the greateſt

Degs.	♈			♉			♊			♋			♌			♍		
	h	m	s	h	m	s	h	m	s	h	m	s	h	m	s	h	m	s
0	0	0	0	1	51	37	3	51	15	6	0	0	8	8	45	10	8	23
1	0	3	40	1	55	27	3	55	25	6	4	22	8	12	54	10	12	12
2	0	7	20	1	59	17	3	59	36	6	8	43	8	17	3	10	16	0
3	0	11	0	2	3	8	4	3	48	6	13	5	8	21	11	10	19	48
4	0	14	41	2	6	59	4	8	0	6	17	26	8	25	19	10	23	35
5	0	18	21	2	10	51	4	12	13	6	21	48	8	29	26	10	27	22
6	0	22	2	2	14	44	4	16	26	6	26	9	8	33	31	10	31	8
7	0	25	42	2	18	37	4	20	40	6	30	30	8	37	37	10	34	54
8	0	29	23	2	22	31	4	24	55	6	34	51	8	41	41	10	38	40
9	0	33	4	2	26	25	4	29	10	6	39	11	8	45	45	10	42	25
10	0	36	45	2	30	20	4	33	26	6	43	31	8	49	48	10	46	9
11	0	40	26	2	34	16	4	37	42	6	47	51	8	53	51	10	49	53
12	0	44	8	2	38	13	4	41	59	6	52	11	8	57	52	10	53	37
13	0	47	50	2	42	10	4	46	16	6	56	31	9	1	53	10	57	20
14	0	51	32	2	46	8	4	50	34	7	0	50	9	5	53	11	1	3
15	0	55	14	2	50	7	4	54	52	7	5	8	9	9	53	11	4	46
16	0	58	5	2	54	7	4	59	10	7	9	26	9	13	52	11	8	28
17	1	2	40	2	58	7	5	3	29	7	13	44	9	17	50	11	12	10
18	1	6	23	3	2	8	5	7	49	7	18	1	9	21	47	11	15	52
19	1	10	7	3	6	9	5	12	9	7	22	18	9	25	44	11	19	34
20	1	13	51	3	10	12	5	16	29	7	26	34	9	29	40	11	23	15
21	1	17	35	3	14	15	5	20	49	7	30	50	9	33	35	11	26	56
22	1	21	20	3	18	19	5	25	9	7	35	5	9	37	29	11	30	37
23	1	25	6	3	22	23	5	29	30	7	39	20	9	41	23	11	34	18
24	1	28	52	3	26	29	5	33	51	7	43	34	9	45	16	11	37	58
25	1	32	38	3	30	35	5	38	12	7	47	47	9	49	9	11	41	39
26	1	36	25	3	34	41	5	42	34	7	52	0	9	53	1	11	45	19
27	1	40	12	3	38	49	5	46	55	7	56	12	9	56	52	11	49	0
28	1	44	0	3	42	57	5	51	17	8	0	24	10	0	43	11	52	40
29	1	47	48	3	47	6	5	55	38	8	4	35	10	4	33	11	56	20
30	1	51	37	3	51	15	6	0	0	8	8	45	10	8	23	12	0	0

The time of the ſouthing or meridian tranſits of the fixed ſtars in pa. 46, may be found thus. On the noon of the day, preceding the night in which you want to know the time of the ſouthing of any of thoſe ſtars, find the Sun's place in the Ephemeris, and with it take out of the above table his right aſcenſion in time; this you may do by inſpection to a minute, which will be ſufficient for your preſent purpoſe: Then from the right aſcenſion of the ſtar in pa. 46, ſubtract the right aſcenſion of the Sun, the remainder will be the eſtimate time of the ſtar's ſouthing, and will not differ from the true time above 2 or 3 minutes at moſt, which may be near enough for ordinary uſes. But when great exactneſs is required, reduce the Sun's place to this eſtimate time, and with it find in the above table his right aſcenſion to econds, which being ſubtracted from that of the ſtar, the remainder will be the

Obliquity of the Ecliptic being 23° 28′.

Degr.	♎			♏			♐			♑			♒			♓		
	h	m	s	h	m	s	h	m	s	h	m	s	h	m	s	h	m	s
0	12	0	0	13	51	37	15	51	15	18	0	0	20	8	45	22	8	23
1	12	3	40	13	55	27	15	55	25	18	4	22	20	12	54	22	12	12
2	12	7	20	13	59	17	15	59	36	18	8	43	20	17	3	22	16	0
3	12	11	0	14	3	8	16	3	48	18	13	5	20	21	11	22	19	48
4	12	14	41	14	6	59	16	7	0	18	17	26	20	25	19	22	23	35
5	12	18	21	14	10	51	16	12	13	18	21	48	20	29	26	22	27	22
6	12	22	2	14	14	44	16	16	26	18	26	9	20	33	31	22	31	8
7	12	25	42	14	18	37	16	20	40	18	30	30	20	37	37	22	34	54
8	12	29	23	14	22	31	16	24	55	18	34	51	20	41	41	22	38	40
9	12	33	4	14	26	25	16	29	10	18	39	11	20	45	45	22	42	25
10	12	36	45	14	30	20	16	33	26	18	43	31	20	49	48	22	46	9
11	12	40	26	14	34	16	16	37	42	18	47	51	20	53	51	22	49	53
12	12	44	8	14	38	13	16	41	59	18	52	11	20	57	52	22	53	37
13	12	47	50	14	42	10	16	46	16	18	56	31	21	1	53	22	57	20
14	12	51	32	14	46	8	16	50	34	19	0	50	21	5	53	23	1	3
15	12	55	14	14	50	7	16	54	52	19	5	8	21	9	53	23	4	46
16	12	58	57	14	54	7	16	59	10	19	9	26	21	13	52	23	8	28
17	13	2	40	14	58	7	17	3	29	19	13	44	21	17	50	23	12	10
18	13	6	23	15	2	8	17	7	49	19	18	1	21	21	47	23	15	52
19	13	10	7	15	6	9	17	12	9	19	22	18	21	25	44	23	19	34
20	13	13	51	15	10	12	17	16	29	19	26	34	21	29	40	23	23	15
21	13	17	35	15	14	15	17	20	49	19	30	50	21	33	35	23	26	56
22	13	21	20	15	18	19	17	25	9	19	35	5	21	37	29	23	30	37
23	13	25	6	15	22	23	17	29	30	19	39	20	21	41	23	23	34	18
24	13	28	52	15	26	29	17	33	51	19	43	34	21	45	16	23	37	58
25	13	32	38	15	30	35	17	38	12	19	47	47	21	49	9	23	41	39
26	13	36	25	15	34	41	17	42	34	19	52	0	21	53	1	23	45	19
27	13	40	12	15	38	49	17	46	55	19	56	12	21	56	52	23	49	0
28	13	44	0	15	42	57	17	51	17	20	0	24	22	0	43	23	52	40
29	13	47	48	15	47	6	17	55	38	20	4	35	22	4	33	23	56	20
30	13	51	37	15	51	15	18	0	0	20	8	45	22	8	23	24	0	0

the true time of the ſtar's culminating or ſouthing. And if from the time of the ſtar's ſouthing you ſubtract the ſemidiurnal arc belonging to it, the remainder will be the time of the ſtar's riſing; and being added to it, the ſum will be the time of its ſetting.

Annexed is an Ex. of SIRIUS for Jan. 31, 1784.

	h	m	s
☉'s place at noon ♒ 12° 8′			
℞t. Aſc. of Sirius - -	6	35	33
☉'s rt. aſc. ſubtract -	20	58	24
✱'s eſtimate ſouthing -	9	37	9
☉'s rt. aſc. at that time ſub.	20	59	35
✱'s true ſouthing - -	9	35	58
Semid. arc ſub. & add -	4	36	55
✱'s riſing aftern. - -	4	59	3
✱'s ſetting - -	14	12	53

A Table of the mean Right-Aſcenſions in time, Semidurnal-Arcs, Declinations, and Magnitudes of 40 remarkable fixed Stars, with their Names, and Bayer's Literal Characters, for January 1, 1782.

Names of the Stars	Ch.	Rt. Aſc.			Declination				Semid. Ar.			Ma
		h	m	s	°	′	″		h	m	s	
Pole ſtar, Alruccabah -	α	0	48	3	88	8	36	n	ſets not			2
Andromeda's girdle, Mirach -	β	0	57	36	34	27	35	n	10	7	32	2
Andromeda's left foot, Almach	γ	1	50	36	41	16	30	n	ſets not			2
Ram's following horn -	α	1	54	56	22	25	27	n	8	9	35	2
Whale's jaw, Menkar -	α	2	50	54	3	13	26	n	6	19	48	2
Meduſa's head, Algol - -	β	2	54	4	40	6	6	n	ſets not			2
Perſeus's right ſide, Algenib	α	3	8	51	49	4	11	n	ſets not			2
Brighteſt of the 7 ſtars -	η	3	34	34	23	25	2	n	8	16	40	3
Bull's ſouth eye, Aldebaran	α	4	23	26	16	3	23	n	7	28	51	1
Auriga's left ſhoulder, Capella	α	5	0	37	45	44	59	n	ſets not			1
Orion's left foot, Rigel -	β	5	4	4	8	28	3	s	5	20	28	1
Bull's north horn - -	β	5	12	32	28	24	22	n	8	57	1	2
Orion's left ſhoulder, Bellatrix	γ	5	13	27	6	8	10	n	6	34	41	2
Orion's girdle - -	ε	5	25	10	1	21	24	s	5	56	42	2
Orion's right ſhoulder, Betelgeuſe	α	5	43	23	7	20	59	n	6	40	58	1
In the great Dog's mouth, Sirius	α	6	35	33	16	25	14	s	4	36	55	1
Head of the 1ſt Twin, Caſtor	α	7	20	41	32	20	54	n	9	38	21	1
In the leſs Dog's thigh, Procyon	α	7	27	54	5	46	41	n	6	32	50	1
Head of the 2d Twin, Pollux	β	7	31	59	28	32	14	n	8	58	13	2
Hydra's heart, Alphard -	α	9	16	53	7	43	21	s	5	24	20	2
Lyon's heart, Regulus -	α	9	56	45	13	1	32	n	7	11	28	1
Great Bear, Lower Pointer	β	10	48	34	57	32	47	n	ſets not			2
Great Bear, Upper Pointer -	α	10	50	8	62	55	27	n	ſets not			2
Lion's tail, Deneb - -	β	11	37	56	15	47	28	n	7	27	18	2
Great Bear, 1ſt in the tail, Aliath	ε	12	44	22	57	8	46	n	ſets not			2
Virgius's ſpike - -	α	13	13	44	10	1	2	s	5	12	20	1
Dragon's tail - -	α	13	58	30	65	25	19	n	ſets not			2
Bootes, Arcturus -	α	14	5	46	20	20	5	n	7	55	26	1
Libra, Southern Scale - -	α	14	38	52	15	7	26	s	4	44	23	2
Libra, Northern Scale - -	β	15	5	18	8	33	59	s	5	19	57	2
Bright ſtar in the North Crown	α	15	25	28	27	27	35	n	8	48	36	2
Scorpion's heart, Antares	α	16	16	4	25	55	50	s	3	34	6	1
Hercules's head, Raſ. Algethi	α	17	4	43	14	39	8	n	7	20	41	2
Head of Serpentarius - -	α	17	24	49	12	44	2	n	7	9	50	2
Dragon's head, Raſtaben -	γ	17	51	34	51	31	19	n	ſets not			2
Bright ſtar in the Harp, Lyra	α	18	29	33	38	35	19	n	ſets not			1
Bright ſtar in the Eagle, Atair	α	19	40	8	8	18	10	n	6	45	57	2
Mouth of ſouth Fiſh, Fomalhaut	α	22	45	34	30	46	17	s	2	52	6	1
Pegaſus's wing, Markab -	α	22	53	55	14	2	8	n	7	17	10	2
Andromeda's head - -	α	23	57	9	27	53	2	n	8	52	19	2

A Table of the Longitudes, Latitudes, and Magnitudes of the moſt remarkable fixed Stars that the Moon can Eclipſe, or make a near Appulſe unto; exactly rectified to the beginning of the year 1780.

Con.	Cha.	Long.				Lat.				Mag.	Con.	Cha.	Long.				Lat.				Mag.
			°	′	″	°	′	″						°	′	″	°	′	′		
♓	δ	♈	11	4	48	2	9	44	n	4	♎	α	♏	12	1	6	0	21	48	n	2
	ε		14	28	2	1	5	37	n	4		12		17	56	14	1	49	14	s	3
	ζ		16	48	2	0	13	11	s	4		γ		22	3	46	4	24	41	n	3
♈	δ	♉	17	46	21	1	48	7	n	4		η		24	18	10	4	2	52	n	4
♉	η		26	55	21	4	1	36	n	3		κ		24	41	24	0	1	1	n	4
	γ	♊	2	43	37	5	45	30	s	3		θ		26	47	49	3	29	24	n	4
	ε		5	23	14	2	35	37	s	3		λ		27	24	23	0	6	53	n	4
	α		6	42	57	5	29	2	s	1	♏	δ		29	30	5	1	57	17	s	3
	β		19	30	14	5	21	59	n	2		π		29	52	12	5	26	15	s	3
	ζ		21	42	52	2	13	29	s	3		β	♐	0	7	10	1	2	18	n	2
♊	η	♋	0	22	14	0	55	4	s	4		ν		1	34	27	1	39	52	n	4
	μ		2	13	39	0	50	34	s	3		σ		4	43	50	4	0	23	s	4
	γ		5	1	57	6	46	12	s	2		α		6	41	35	4	32	17	s	1
	ε		6	52	7	2	2	28	n	3		τ		8	23	19	6	5	21	s	4
	δ		15	27	6	0	12	19	s	3	♐	γ		28	11	40	6	56	48	s	3
	β		20	11	11	6	40	4	n	1		μ	♑	0	8	35	2	22	24	n	4
♋	γ	♌	4	28	28	3	10	22	n	4		λ		3	15	8	2	5	31	s	4
	δ		5	38	46	0	4	13	n	4		φ		7	6	25	3	55	22	s	3
♌	ξ		18	35	0	3	1	57	s	4		σ		9	18	54	3	24	55	s	3
	ο		21	11	15	3	46	1	s	4		τ		11	46	9	5	2	33	s	3
	η		24	50	0	4	51	9	n	4		ο		11	55	13	0	53	36	n	3
	α		26	46	26	0	27	27	n	1		π		13	10	58	1	28	7	n	4
	ρ	♍	3	19	2	0	8	29	n	4	♑	β	♒	0	58	32	4	36	46	n	3
	τ		18	26	24	0	31	21	s	4		ε		17	7	37	4	57	31	s	4
	υ		21	58	9	3	2	51	s	4		γ		18	42	30	2	32	6	s	4
♍	β		24	2	24	0	41	36	n	3		δ		20	27	42	2	33	40	s	3
	ο	♎	0	17	47	5	4	42	n	3	♒	ι		25	38	54	2	3	47	s	4
	η		1	45	53	1	22	24	n	3		θ	♓	0	11	19	2	43	22	n	4
	γ		7	6	18	2	48	57	n	3		λ		8	30	20	0	22	57	s	4
	α		20	46	27	2	2	11	s	1		ο		14	4	16	1	2	8	s	4

This table ſhewing the mean longitudes of 60 ſtars to the beginning of the year 1780, their mean longitudes for any other time may be found if $50\frac{1}{3}$ ſeconds be added for each ſucceeding, and ſubtracted for each preceding year, and proportionably for a part of a year. Thus, to find the longitude of the firſt ſtar ♓ δ, or δ piſcium, for Feb. 15, 1782, or 2 years and one eighth after the tabular time; here $2\frac{1}{8}$ times $50\frac{1}{3}$ ſec. make 1′ 47″, which being added to the tabular longitude, gives ♈ 11° 6′ 35″ for the longitude required at the given time.——The latitudes vary not.

The Latitudes and Longitudes of Ninety Places.

	Lat.	Long.		Lat.	Long.
	° ′	° ′		° ′	° ′
Alexandria, Egypt	31 11 n	30 17 e	Iſpahan	32 25 n	52 55 e
Amſterdam, Hol.	52 23 n	4 52 e	Land's end	50 6 n	5 50 w
Archangel, Ruſ.	64 34 n	38 30 e	Leghorn	43 33 n	10 25 e
Athens	37 40 n	23 52 e	Leoſtoff	52 38 n	1 54 e
Babelmandel	12 50 n	43 50 e	Leverpool	53 22 n	3 10 w
Batavia	6 12 s	106 45 e	Lima	12 1 s	76 50 w
Bengal	22 0 n	92 45 e	Liſbon	38 42 n	9 4 w
Berlin	52 33 n	13 26 e	Lizard	49 57 n	5 21 w
Bombay Iſle	19 42 n	73 3 e	London	51 31 n	0 0
Boſton, Amer.	42 25 n	70 37 w	Madras	13 8 n	80 7 e
Breſlau	51 3 n	17 13 e	Madrid	40 25 n	3 45 w
Breſt	48 23 n	4 30 w	Manila	14 30 n	120 25 e
Briſtol	51 28 n	2 30 w	Marſeilles	43 18 n	5 21 e
Buenos Ayres	34 35 s	58 0 w	Mexico	19 54 n	100 5 w
Cadiz	36 31 n	6 7 w	Miſſiſſipi, mouth	29 0 n	89 17 w
Calais	50 58 n	1 51 e	Moſcow	55 25 n	37 51 e
Cairo, Egypt	30 2 n	31 26 e	Naples	40 51 n	14 19 e
Cambridge	52 13 n	0 4 e	Newcaſtle	55 0 n	1 18 w
Canaria Iſlands	28 1 n	15 0 w	Oporto	49 53 n	8 35 w
Canton	23 8 n	113 2 e	Orkney I. northend	59 24 n	3 23 w
Cape of Goodhope	34 29 s	18 23 e	Oxford	51 45 n	1 16 w
Cape Horn	55 59 s	67 26 w	Paris	48 50 n	2 25 e
Carthegena	10 27 n	75 26 w	Pekin	39 55 n	116 22 e
Charles Town Am.	33 22 n	79 50 w	Peterſburg	59 56 n	30 19 e
Conſtantinople	41 0 n	28 53 e	Philadelphia	39 57 n	75 18 w
Copenhagen	55 41 n	12 50 e	Plymouth	50 24 n	4 15 w
Corinth	37 30 n	23 0 e	Port Mahon	39 51 n	3 53 e
Corke	51 54 n	8 30 w	Port Royal, Jam.	17 40 n	76 37 w
Dantzic	54 22 n	18 36 e	Portſmouth	50 48 n	1 1 w
Dover	51 7 n	1 19 e	Prague	50 5 n	14 15 e
Dublin	53 12 n	6 55 w	Quebec	46 55 n	71 12 w
Edinburgh	55 58 n	3 1 w	Rome	41 54 n	12 32 e
Ferro, Iſle	27 48 n	18 6 w	Scilly Iſles	50 0 n	6 45 w
Finiſterre, Cape	42 57 n	9 36 w	Smyrna	38 28 n	27 25 e
Genoa	44 25 n	8 41 e	Stockholm	59 22 n	18 12 e
Gibraltar	36 5 n	4 46 w	Syracuſe	37 4 n	15 20 e
Glaſgow	55 52 n	4 5 w	Tangier	35 55 n	5 45 w
Goa	15 31 n	73 50 e	Teneriff	28 16 n	16 32 w
Gottingen	51 32 n	9 58 e	Tunis	36 47 n	10 16 e
Greenwich	51 29 n	0 5 e	Turin	45 5 n	7 45 e
Hacluit's Head.	79 55 n	12 0 e	Venice	45 27 n	12 24 e
Halifax, America	44 46 n	63 20 w	Verd, Cape	14 47 n	17 28 w
Havanna	23 12 n	81 11 w	Vienna	48 11 n	16 28 e
Helena, I. St.	15 55 s	5 49 w	Upſal	59 52 n	17 43 e
Jeruſalem	31 50 n	35 25 e	Uraniberg	55 54 n	12 52 e

FINIS.

ng.
′
55 e
50 w
25 e
54 e
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50 w
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22 e
19 e
18 w
15 w
3 53 e
6 37 w
1 1 w
4 15 e
1 12 w
2 32 e
6 45 w
7 25 e
8 12 e
5 20 e
5 45 w
16 32 w
10 16 e
7 45 e
12 24 e
17 28 w
16 28 e
17 43 e
12 52 e